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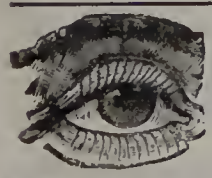

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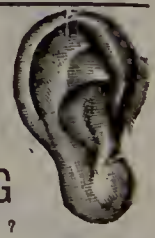

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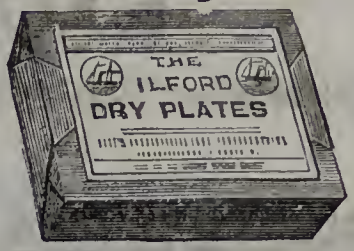

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In small and frequent doses it is an efficient *diuretic*, but as an *aperient* it should be taken *before breakfast*, in doses of from 1 to 2 teaspoonfuls, dissolved in water, preferably warm. To increase the *aperient* action of the Natural Carlsbad Mineral Water, a teaspoonful of the Salt, previously dissolved in a little hot water, should be added.

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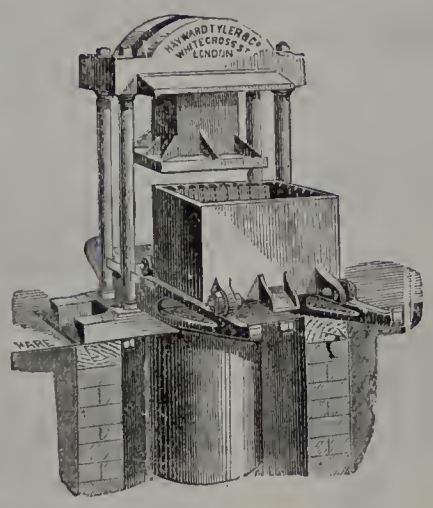

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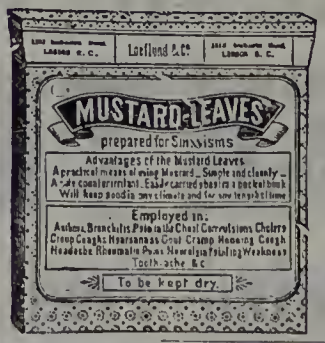

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17

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("KAISER FRITZ" BRAND).

Messrs. KENNAWAY & CO. are appointing Chemists as agents for the sale of this brand of Beef Wine throughout the country. This preparation, named after the invalid Emperor of Germany, is the purest and best that can be procured. Messrs. Kennaway & Co. secure to their agents a much larger margin of profit than can be got on other preparations of this description, and in addition pay half their licences annually, including cost of obtaining the same, which they arrange through their own solicitors. To obtain these licences they have never yet failed. Under Excise regulations, it is now necessary for Chemists to hold wine licences if they sell anything in the shape of medicated wines. New licences can only be got once a year—the time is immediately approaching.

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"ELECT" COCOA.

The "MEDICAL PRESS AND CIRCULAR":—
"Certainly this preparation is of delicate flavour . . . It is perfectly soluble . . . the small quantity required for the *immediate* production of a cup of excellent cocoa will ensure for this 'Elect Extract' a favourable reception at the hands of persons of weak digestion, and all who prefer this wholesome beverage to tea and coffee.

The "BRITISH MEDICAL JOURNAL" says:—
"Rowntree's Cocoa Extract is one of the best. Its flavour and aroma are good. Cocoa thus prepared is one of the most digestible articles of food."

YORK, ENGLAND.

ROBINSON'S LIEBIG'S BEEF WINE.

Composed of Liebig's Extract of Beef, Extract of Malt, and sound Port Wine.

REPORT ON BEEF WINES.

From the results of my Analyses of various Beef Wines I have had occasion to examine, none have equalled as regards strength, purity of ingredients, and (of no less importance) the skilful and judicious manner in which the respective ingredients have been proportioned and combined, the Liebig's Beef Wine manufactured by Mr. B. ROBINSON, of Pendleton, Manchester.

It is in every sense a reliable preparation, embodying in a pleasing and palatable form all the acknowledged medicinal and nutritive properties pertaining to Liebig's Extract of Meat, Extract of Malt, and sound Port Wine.

WILLIAM ELBORNE, F.C.S., F.L.S.,
Lecturer on Materia Medica in the Owens College, Manchester (Victoria University).
December 15, 1888.

Introduced 1855.] **ROBINSON'S CONCENTRATED WATERS.** [Introduced 1855.

One Ounce of these Waters added to Forty Ounces of Distilled Water forms a clear Medicated Water (without filtering), similar in every respect to those prepared according to the directions of the British Pharmacopœia, and free from all Chemical impurity. They will keep good any length of time in any climate.

Aqua Anethi, Concent., 4/ lb.	Aqua Cinnam. Ver. Concent., 6/ lb.	Aqua Fœniculi, Concent., 4/ lb.	Aqua Pimentæ, Concent. 4/ lb
" Anisi " 4/ "	" Cassiæ " 4/ "	" Menth. Pip. " 4/ "	" Rosæ " 8/6
" Camphoræ " 4/ "	" Flor. Aurant. " 8/6 "	" " Ang. " 6/ "	" Rosæ Virgin " 10/6
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The above are put up in Bottles of ½lb. or 1lb. and upwards, each of which has the Inventor's Protection Label over Cork.

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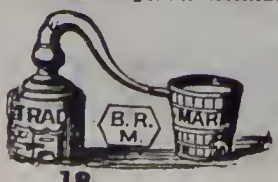

18

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We can supply 6d. Bottles with special wording on labels, as "Smith's Herb Beer Extract," &c. Labels in colours. Price 39/ per gross nett.

POTTER & CLARKE,

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HERBS IN PACKETS

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ON EACH PACKET

REGISTERED

Price 7/- per gross.

PACKETS TASTEFULLY DESIGNED.

ALL HERBS CAREFULLY SELECTED.

Descriptive Pamphlets, Show Cards, Handbills, &c., with every order.

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FOR INFANTS AND INVALIDS.

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"Undoubtedly many persons have been starved to death through inexperienced Medical Men and Nurses placing an undue nutritious value on such preparations as Extract of Meat, home-made beef-tea &c.; whereas,

had BOVRIL been used in their stead, the patients would, in nine cases out of ten, have gained strength to battle against the disease under which they were suffering.

I have no hesitation to advise you to prescribe to your patients, to your convalescents, to those of your clients who have mental exertions, to use JOHNSTON'S BOVRIL, which, in a concentrated form, contains a substantial tonic and a palatable food.

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Unsurpassed in richness of tint, and unobjectionable in taste or odour.

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BEST at the PRICE EVER SOLD. Great strength, and a most useful Tea where there is a large consumption. Recommended to all who wish to SAVE in their Tea. Agents appointed where unrepresented throughout the United Kingdom.

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ABSOLUTELY PURE.

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It is just this: a packet at **4½d.**, with 1 lb. Sugar and ½-pint Boiling Water, will make 1½ pint of Superb Fruit Syrup, unsurpassed by any, for **SEVENPENCE.**

NOTE THIS.—We will supply Printed Advertising Matter, Free Samples, &c., to any Chemist who will take the Agency, and make it worth his purpose to do so.

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LIME JUICE
IN IMPERIAL QUARTS AND PINTS.
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Sole Agents for London and District—H. J. ROYDANT & CO., 75 Acre Lane, Brixton, S.W.

"RAMORNIE." LIEBIG'S Extract of Meat.

As supplied to the Admiralty, War, and India Offices.

1-lb. Jars	per lb. 6/9	per doz. 81/0		2-oz. Jars	per lb. 7/8	per doz. 11/6	
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QUOTATIONS FOR EXTRACT IN "BULK" ON APPLICATION.

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Supplied to the Trade in beautifully graven white metal boxes, with blue silk labels, at 8*s.* and 16*s.* per dozen. Retail prices, 1*s.* and 2*s.* per box.

"TABLOIDS" prepared by BURROUGHS, WELLCOME &] CO.

Aconite Tinct., 1 min.
Aloin, 1/10 gr.
Ammon. Bromide, 5 and 10 gr.
Ammon. Chloride, 3, 5 and 10 gr.
Ammon. Chloride with Borax.
Antacid.
Anti-Constipation — Aloin, 1/5 gr.; Belladon. Ex., 1/8 gr.; Strych., 1/60 gr.; Ipecac., 1/16 gr.
Antifebrin, 2 gr.
Antimony Tartrate, 1/50 gr.
Antipyrin, 5 gr.
Apomorphine Mur., 1/50 gr.
Arsenious Acid, 1/100 and 1/50 gr.
Atropine Sulph., 1/100 gr.
Belladonna Tinct., 1 min.
Bismuth Sub-nitrate, 5 and 10 gr.
Blue Pill, 3 gr.
Borax, 5 gr.
Caffeiu Citrate, 2 gr.
Calcium Sulphide, 1/10 gr.
Calomel, 1/10 and 1 gr.
Capsicum Tinct., 1 min.
Cascara Sagrada Dry Ext., 2 gr.
Cascara Comp.
- Cascara Sagrada Ext. (dry), 1 gr.
- Euonymin, ½ gr.
- Nux Vomica Ext. 1/16 gr.
- Hyoscyam. (dry) Ext., 1/3 gr.

Cathartic Comp., U.S.P.
Charcoal, 5 gr.
Chloralamid, 5 gr.
Chloral Hydrate, 5 and 10 gr.
Cocaine, 1 gr.
Cocaine, Potash, and Borax (Voice)
Creta Aromat. cum Opio Pulv., 5 gr.
Digitalis Tinct., 1 min.
Digitalin, 1/100 gr.
Diuretin Knoll, 5 gr.
Dover Powder, ¼ and 5 gr.
Euonymin Resin, 1/8 gr.
Exalgin, 2 grs.
Formin Redactum, 2 gr. [1/3 gr.
Hydrarg. cum Crota (Grey Powder),
Hydrarg. Iod. Rub., 1/20 gr.
Hydrarg. Iod. Vir., 1/8 gr.
Hydrarg. Perchlor., 1/100 gr.
Hydrarg. Subchlor. (Calomel), 1/10 and 1 gr.
Hydrastia Comp.
- Hydrastia Mur., ¼ gr.
- Ergotine, ½ gr
- Cannabin Tannate, ½ gr.

Ipecac. and Opium (Dover Powder)
Ipecac. Powder, 1/10 and 5 gr.
Iron and Quinine Cit., 3 gr.
Laxative Vegetable
- Res. Podoph., Ext. Hyoscy., Ext. Tarax., aa 1/4 gr.
- Ext. Coloc. Pulv., 1 gr.
- Jalapæ Pulv., Res. Leptand., aa 1/2 gr.; Ol. Menth. Pip.

Lithia Carbonate, 2 gr.
Manganese Dioxide, 2 gr.
Morphine Sulph., 1/20 and 1/8 gr.
Nitroglycerine (see Trinitrine).
Nux Vomica Tinct., 1 min.
Opium Tinct. (Laudanum), 2 min.
Pancreatin.
Papain (Dr. Finkler & Co.), 2 gr.
Pepsin, Pure (Fairchild).
Pepsin Saccharated, 5 gr.
Peptonic (Pepsin, Pancreatin, Lactophosphate Lime, equal quantities)
Phenacetin, 5 gr.
Pilocarpin Mur., 1/20 gr.
Podophyllin Resin, 1/4 gr.
Potass Bicarb., 5 gr.
Potass Bromide, 5 and 10 gr.
Potass Chlorate, 5 gr.
Potass Chlorate with Borax.
Potass Iodide, 5 gr.
Potass Nit. (Sal Prunella), 5 gr.
Potass Permanganate, 1 and 2 gr.
Quinine, 1/10, ½, 1, 2, 3, and 5 gr.
Reduced Iron.
Rhubarb, 3 gr.
Rhubarb Comp. (Pil.), 3 gr.
Rhubarb Comp. Pulv. (Gregory Powder), 5 gr.
Rhubarb and Soda, 5 gr.
Saccharin, ½ gr.
Salicin, 5 gr.
Salol, 5 gr.
Santonin, ½ gr.
Soda Bicarbonate, 5 gr. [& Mint)
Soda-Mint (Soda Bicarb., Ammon. Carb.
Soda Salicylate, 3 and 5 gr.
Strophanthus Tinct., 2 min.
Sulphonal, 5 gr.
Sulphur Comp. (Dr. Garrod's Formula)
Tannin, 2½ gr.
Test Tabloids (Fehling's).
Thirst.
Tonic Comp.
- Iron Pyrophosph., 2 gr.
- Quinine Sulph., 1 gr.
- Strychnine Sulph., 1/100 gr.

Trinitrine (Nitroglycerine), 1/100 and 1/50 gr.
Trinitrine and Amyl Nitrite.
Trinitrine Co.
- Trinitrine, 1/100 gr.
- Nitrite of Amyl, ½ gr.
- Capsicum,
- Menthol, aa 1/50 gr.

Urethane, 5 gr.
Voice (Potash, Borax, and Cocaine).
Warburg Tincture, 30 min. in each.
Zinc Sulphate, 1 gr.
Zinc Sulpho-carbolate, 2 gr.
Zymine (Pancreatin).
Zymine Comp. Tabloids (Zymine, 2 gr.; Bismuth Subnitrate, 3 gr.; Powd. Ipecac., 1/10 gr.)

These pure, portable, permanent, and palatable "Tabloids" of Compressed Drugs are supplied in convenient packages for dispensing, and at greatly reduced prices.

BURROUGHS, WELLCOME & CO., Snow Hill Buildings, LONDON, E.C.

"VASELINE"

(REGISTERED TRADE MARK)

Sample Box Three Dozen Tablets 9/-, Carriage Paid.

NEW STYLE.

Each Tablet in Card Case.

SOAP.

The Best Emollient in the World must be the Best Basis for Toilet Soap. **33/- PER GROSS TABLETS.**

CHESEBROUGH CO., 42 Holborn Viaduct, LONDON, E.C.

Proprietors and Sole Makers of the "Vaseline Preparations."

"BLUE SEAL," our regular 6*d.* size, without Card Case, in Boxes of one gross, 32s. net.

HAZELINE.

A colourless, distilled product, containing the volatile active principles of the fresh green twigs and leaves of the Witch Hazel.

The Witch Hazel Plant. (*Hamamelis Virginica, Linn.*)

Properties.—*Hæmostatic, Anodyne, and Astringent.*

Prescribed in cases of hæmorrhage from the nose, lungs, womb, rectum, &c. Is a valuable agent in the treatment of bruises, sprains, inflammation, peritonitis, piles, fistula, anal fissure, ulcers, varicose veins, eczematous surfaces, tonsilitis, pharyngitis, nasal and post-nasal catarrh, stomatitis, leucorrhœa, nasal polypi, &c.

Hazeline supplied to the Trade in ¼-lb. and 1-lb. bottles at 14*s.* and 42*s.* per dozen.

ARTIFICIAL EAR DRUMS (Ward Cousins).

These effective little membranes are highly recommended as a substitute for the natural drum in perforation of the natural membrane, and to assist the hearing in deafness caused by perforation; also as an antiseptic in disease of the middle ear attended with suppuration. These drums were exhibited and practically demonstrated in the section of Otology at the Leeds meeting of the British Medical Association. They are inexpensive, and may be easily inserted by the patient. The drum inserted *in situ* causes no discomfort.

Supplied in boxes containing 3 dozen drums at 8*s.* 6*d.* per dozen boxes. Retail 1*s.* Combination blunt probe and nippers for insertion and extraction, 8*s.* per dozen. Retail 1*s.*

BURROUGHS, WELLCOME & CO., LONDON, E.C.

ISO-BUTYL NITRIS.

Also GLASS CAPSULES of ISO-BUTYL NITRITE.

For use in Angina Pectoris, Asthma, and similar complaints, by Inhalation.

Liquor Cascaræ Suavis.

(REGISTERED.)

An agreeable Aromatic Fluid Extract of *Cascara Sagrada*, possessing the full laxative and aperient properties of the bark.

Sol. Æthyl Nitritis.

Containing **3 per cent.** of **Pure Nitrite of Ethyl,** in Absolute Alcohol and Glycerine.

See paper by Professor LEECH on "The Comparative Effects of Spiritus Ætheris Nitrosi and Solution of Ethyl Nitrite," *Pharmaceutical Journal*, December 22, 1888.

Spiritus Ætheris Nitrosi.

Guaranteed to contain the proportion of Nitrous Ether directed by the British Pharmacopœia.

Æther Nitrosus and Sol. Ætheris Nitrosi.

Respectively 8 and 4 times the strength of the Spirit.

JAMES WOOLLEY, SONS & CO.

Manufacturing Pharmaceutical Chemists,

MANCHESTER.

Laboratories and Drug Mills, KNOWSLEY STREET, CHEETHAM.

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THE CHEMIST AND DRUGGIST

ESTABLISHED 1859

PRINCIPAL OFFICE, 42 CANNON STREET, LONDON, E.C.

BRANCH OFFICES:

MELBOURNE AND SYDNEY, AUSTRALASIA.

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Post free to every country in the world. Single copies 4*d.* each.

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For Australasian subscribers the subsidiary journal, THE CHEMIST AND DRUGGIST OF AUSTRALASIA, is included.

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SUMMARY.

SOME light is thrown on the glycerine market by an article on page 50.

CARBOLIC ACID seems to be again having a run as the champion poison. We report several deaths this week, accidental and intentional.

THE chemist Jones, charged with conspiracy with a doctor to get an illegal operation performed on a girl, has been sentenced to eight months' imprisonment.

OUR report from Cardiff states that the Marquis of Bute, who is the Mayor of Cardiff this year, has promised to attend at the opening meeting of the British Pharmaceutical Conference.

WE publish to-day the results of an inquiry which we have made regarding the present scarcity of assistants. The article makes interesting reading, as it is really a symposium by many members of the trade.

THE drug markets are dull and there is little of exceptional interest to record, further than the present peculiar position of bromine and glycerine, and the continued advance in the value of ipecacuanha.

OUR legal reports include a charge against a travelling patent-medicine dealer who was alleged to be selling imitations of the Sequah medicines; a further attempt to get commission, again unsuccessful, on the part of the agent who claims to have aided in the formation of the Warner Safe Cure Company; and a prosecution of a chemist for selling cotton-seed oil as salad oil. This also failed.

A CRICKET contest between Mincing and Mark Lanes would have been interesting if it had been fought out, but rain prevented its completion. We give the score as far as it went. A sum of 50*l.* was realised by the match for the Commercial Sale Rooms Benevolent Fund.

SEVERAL correspondents comment on the recent attack on counter-practice by the Society of Apothecaries. Mr. S. M. Burroughs urges the importance, from a national point of view, of getting machinery exempted from taxation. The price of quinine, the proposed Mitcham ring, and stocktaking are among the subjects corresponded about.

THE SOCIETY OF CHEMICAL INDUSTRY is holding a very successful annual meeting in Dublin this week, to which the president, Mr. E. Rider Cook, contributes a valuable address on the utilisation of sewage, a subject with which, as a prominent member of the late Metropolitan Board of Works, he is peculiarly qualified to deal. We print a very full report of the meeting. Professor Emerson Reynolds is the newly-elected president.

EUCALYPTUS HONEY.—Mr. Maiden, curator of the Sydney Technological Museum, sends us a letter for this issue in which he offers to give 5*l.* to the Pharmaceutical Benevolent Fund if anyone can produce a sample of natural eucalyptus honey which contains as much as 5 per cent. of eucalyptol, and of which the natural origin can be conclusively proved. It will be remembered that a few months ago we published a letter from a New South Wales firm in which it was asserted that there is a natural eucalyptus honey which contains from 10 to 15 per cent. of essential oil when newly gathered.

PUBLISHER'S NOTICE.

WE shall publish our popular Summer Number in the week ending July 25, and we offer this final reminder of it to the few firms outstanding who have not yet arranged to have announcements in its pages.

As already stated, we are prepared to bind with that issue the circulars of advertisers if prepared according to our conditions. This is a most effective method of advertising, and there is just time to take advantage of it. Firms who have intended to adopt it, and have put off the preparation of a circular to this date, are requested to communicate with us immediately.

Please take notice. We have been in communication with the trade all over the world for over thirty years, and no one can give such a valuable and influential circulation as we guarantee.

"VETERINARY COUNTER PRACTICE,"

CONTENTS:—Medical and Surgical Treatment of Domestic Animals; Veterinary Medicines; Miscellaneous Veterinary Formulæ; Diseases of the Horse; Lameness in Horses; Dentition of the Horse; Diseases of Cattle; Diseases of Sheep; Diseases of Pigs; Diseases of Dogs; Treatment of Eye Diseases; Wounds, Sores, &c., in Animals; Diseases of Poultry; Appendix.

We have been out of print with this work for the past fortnight, but are again fully stocked. The book may be obtained from either of our offices (42 Cannon Street, London, and Fink's Buildings, Melbourne), or from any of the wholesale houses, at 3*s.* 6*d.*; postage, 3*d.* extra.

THE remarks (in the preface) apply with equal force to this country, and it would prove advantageous to every pharmacist, but especially to those in rural districts, to become more fully acquainted with veterinary practice. The volume in question seems to fulfil the requirements in the case. While the suggestions contained therein will not serve as a substitute for the clinical experience necessary to the equipment of a competent veterinary practitioner, they will frequently assist a pharmacist to supply suitable remedies for cases detailed to him at his counter. The work, it is claimed, has been compiled by experienced veterinary surgeons, and treats of the common ailments of horses, cattle, sheep, pigs, dogs, and poultry.—*Western Druggist* (Chicago)

English News.

THE HALF-HOLIDAY.—The chemists of Aston and district have unanimously decided to close their businesses from 2 to 6 on Wednesday afternoons during the summer months.

RIGHTEOUS OVERMUCH.—Mr. John Henry Green, chemist, of Heath Street, Hampstead, has been fined 10*s.* at the Hampstead Petty Sessions for having a dispensing-scale that would give a customer about two grains more than he asked for. He said his scalemaker had been too busy to attend to his scales.

THE SOVEREIGN CHEMICAL WORKS (HAMILTON & CO.) (LIMITED).—Mr. Justice North, in the Chancery Division of the High Court of Justice, on Friday, July 3, appointed a receiver and manager of this company's business at the suit of Mr. Hall and other debenture-holders. Mr. A. W. Rowden appeared for the plaintiffs; Mr. Frazer represented the company.

SIR MORELL MACKENZIE'S TESTIMONIALS.—Telegrams of a week ago informed us that Sir Morell Mackenzie had brought an action for $10,000 damages against an American firm for the alleged unauthorised use of his name in connection with a medicinal speciality. Now we learn that it is the Soden Mineral Springs Company and the Eisner & Mendelson Company against whom he seeks an injunction.

BRATBY AND HINCHLIFFE (LIMITED).—At a meeting of directors of Messrs. Bratby & Hinchliffe (Limited), aërated-water engineers, of Manchester, Glasgow, and London, held at the registered offices, Sandford Street, Ancoats, Manchester, on June 22, an interim dividend of 10 per cent. per annum on the ordinary shares was declared, and warrants issued for the 6-per-cent. preference shares.

DEATH FROM CHLORODYNE.—John Williams, a retired sea captain, residing at Swansea, met his death on Saturday evening from an overdose of chlorodyne. Deceased went home rather "fresh," and, after eating of cockles and cucumbers, swallowed a good deal of chlorodyne and went to bed. He became unconscious, and the stomach-pump was ineffectually used. An inquest was held on Monday evening, when a verdict of "Death from misadventure" was returned.

INSOLVENCIES.—The statistics of failures in the United Kingdom, compiled half-yearly by Mr. Richard Seyd, F.S.S., and which include bankruptcies and deeds of arrangements, show that, in the first six months of 1891, the total number of insolvencies was 3,987, of which 2,430 were bankruptcies and 1,557 deeds of arrangement. In the first half of 1890 the total was 4,239, made up of 2,484 bankruptcies and 1,755 deeds of arrangement. The record shows that, during the six months, there were 3 failures among wholesale druggists (1 bankruptcy and 2 deeds), and this was exactly what was reported in the first half of 1890. Among retail chemists and druggists there were 13 bankruptcies and 12 deeds in the first half of this year, and 11 and 10 respectively in the first half of 1890.

CRICKET.—The match between Mincing and Mark Lanes, which was to have been played on Tuesday at the Oval, was interfered with by heavy rain. Very little play was possible, but we are told that a satisfactory number of tickets were sold.—At Birmingham on Wednesday the Midland Counties Chemists' Association played against Southall's club. The M.C.C. scored only 39, of which J. Hill made 11. Hunt took all the wickets except one "run out." Southall's had scored 23 for the loss of one wicket, when rain compelled the abandonment of the match.—Birmingham chemists are to meet their *confrères* of Sheffield at the latter town on Thursday, July 16. Any members of the association will be able to travel with the party at a reduced fare. Tickets from Mr. Thompson, 159 Stratford Road.

CARBOLIC-ACID POISONINGS.—On Saturday, July 4, Margaret Redmond, aged 45, of 72 Glenthorne Road, Hammersmith, was found in a narrow passage adjoining the Roman Catholic Monastery at the Broadway, Hammersmith, with a bottle of carbolic acid and a tumbler by her side. She was at once conveyed to the adjoining West London Hospital, where it was found that she had swallowed a quantity of the acid, and was dead. An inquiry into the cause of death has been held.—On Thursday evening, July 2, Thomas Wright, a travelling musician, of Vicarage Street, Leeds, died from the effects of carbolic acid, which he drank in mistake for stout. The landlady of the public-house where the stout was sent for gave the messenger a bottle of carbolic acid in error, with the above-mentioned fatal result. The poison was contained in an ordinary stout-bottle.—A servant girl in the employment of a licensed victualler at Toxteth Park, Liverpool, used carbolic acid to commit suicide with on July 3.

PRUSSIC-ACID POISONING.—Mr. Charles Edward Sheppard, aged 35, M.D., M.R.C.P., of 13 Welbeck Street, Cavendish Square, was on Tuesday of last week engaged in consultation with other medical men as to the desirability of performing an operation upon a young lady. Dr. Sheppard, who was an expert in administering anæsthetics, had commenced giving the inhalation when he noticed a change. He at once called in his medical colleagues, but death had taken place. The sad event had such an effect upon Dr. Sheppard that he returned to his consulting-rooms in a state of great agitation, and later in the day was found dead, with a bottle and glass at his side which had contained prussic acid. At the inquest the medical testimony was to the effect that death had resulted from prussic-acid poisoning. The Coroner, in summing up, said no doubt the death of the young lady was a great shock to the deceased, who had administered chloroform many hundreds of times. He thought that death was due to deceased's own act, at a time when his mind had become unhinged. The jury returned a verdict to that effect.

STEPHANITE.—This is the name (taken from that of the inventor, the late Mr. Stephan) for a new flux, by means of which a superior iron may be produced from an inferior quality of the same metal. By Mr. Stephan's process (now in the hands of the Stephanite Company, London Wall) certain proportions of alumina, emery, and lime are incorporated together and pressed into briquettes. These briquettes are added to the charge of iron and coke in the cupola in the proportion of 80 lbs. of stephanite flux to one ton of iron. The action which is then said to take place is that the high temperature of the furnace converts the alumina into metallic aluminium gases, absorbed by the molten metal. It is claimed for the flux that it acts as a clearing agent on the metal and separates every particle of it from the slag; that the molten metal leaves the furnace in a highly fluid condition, and that consequently better castings are obtainable and blow-holes are avoided. The process was demonstrated at Messrs. H. Young & Co.'s foundry, Pimlico, last week, in the presence of a number of gentlemen connected with the manufacture of iron and steel, and was in every way satisfactory. The new metal produced withstood the severest tests, and showed a very good steely fracture. By a variation of the proportion of flux per ton of the iron different grades of the steel-like metal are produced.

A WIFE'S LIABILITIES.—At Exeter County Court, on Tuesday, Mr. Burroughs, solicitor, of Cullompton, applied to his Honour Judge Edge, for a new trial in the case of Harris *v.* Mrs. Drake. The plaintiff is a chemist, and the defendant the wife of an ex-solicitor. The original action was brought to recover the value of goods sold while Mr. and Mrs. Drake were living together, and on November 5 last judgment was obtained against the wife in respect of the amount claimed. Mrs. Drake, on receiving the summons, handed it to her husband, with instructions to oppose it on her behalf, but he failed to put in an appearance, and consequently judgment went by default. Mr. Burroughs based his application on the grounds, first, that the defendant had no opportunity of being represented at the original trial; secondly, that she had no separate estate; and thirdly, that she was not liable for any of the articles supplied. There were similar claims against Mrs. Drake to the extent of 150*l.*, and she would be considerably prejudiced if the judgment obtained against her were allowed to stand. Mr. H. Burch, who appeared for the plaintiff, contended that the motion was too late. It was admitted that Mr. Drake was his wife's agent, and he had paid 5*l.* into court after judgment was given. He submitted that the defendant had a separate estate, and that she had pledged it for goods supplied. The

learned judge said there would be a *bonâ-fide* contention as to whether Mrs. Drake was or was not liable, and he would grant a new trial.

A Small Strike.—Four boys in the employment of Messrs. W. Cooper & Nephews, chemical manufacturers, Berkhampstead, were summoned last week at the Berkhampstead Petty Sessions, under the Employers and Workmen Act, for absenting themselves from their employment without notice. It was stated that on June 17 some small boys raised an objection to Mr. Gilbert, the manager, in reference to their work. He told them he did not want any unnecessary work done, and they returned to their employment, but soon after he had a statement from them saying, "These are our terms, and no more work will be done by us," duly signed by them; Mr. Gilbert investigated the matter, and found that the boys had no reasonable ground of complaint. They did not return to their work in the afternoon, but next morning three returned, and apologised, and gave a written statement acknowledging that they had no ground of complaint. Subsequently the fourth boy also returned and apologised. Under the circumstances the bench was asked to allow a nominal sum for expenses, with which Messrs. Cooper would be satisfied. The magistrates ordered the boys to pay 5*s*. each, and the chairman said Messrs. Cooper had dealt very leniently with them. Every one knew that Messrs. Cooper's treatment of their employés was most kind and considerate, and defendants had done an extremely foolish thing. They could not be allowed to break an engagement like that, any more than Messrs. Cooper could be allowed to do so.

Fires.—A serious fire occurred early on the morning of July 3, at 30 and 31 New Street, Webber Street, Blackfriars Road, the premises of Messrs. Powell & Barstow, surgical-instrument manufacturers. The fire broke out in a building of three floors, 50ft. by 25ft., which was used as office, engine and boiler-house, and workshops, and flames were showing through the roof by the time the first steamer was set to work. Captain Shaw was early on the scene, and ordered up steamers from nearly every station south of the Thames, which were set to work as they arrived. The occupants of the small tenements in New Street had to move their property in haste. It was nearly two hours before the fire was under control, and then Messrs. Powell & Barstow's premises had been entirely gutted. Other buildings were also seriously injured. The cause of the fire is unknown.—On Tuesday the warehouse at 14 Charterhouse Buildings, partly occupied by Messrs. Butler & Crispe, patent-medicine vendors, was attacked by fire. In some way a large number of empty cases stacked in the yard had taken fire, and with remarkable rapidity the back of the ground and basement floors had become ignited. So speedily was the mischief spreading that when the first hydrant was opened and streams of water thrown on the flames the fire was blazing so vigorously that at the building opposite the window-glass was shattered and the building more or less damaged by heat, smoke, and water. The promptitude with which the alarm was raised and responded to, however, saved what would otherwise have been a great conflagration. Considerable damage, however, was done.

A Doctor and a Chemist Convicted.—The trial at the Central Criminal Court of Dr. Charles Calob Whitefoord, surgeon, and Edwin Jones, chemist, of the Queen's Road, Bayswater, charged with conspiracy to perform certain unlawful operations on two servants, was concluded on Saturday last. The facts of the case have been reported. Mr. C. F. Gill, who defended Jones, submitted that, so far as his client was concerned, the only evidence of weight against him was the testimony of the girl Hammett as to what transpired, as she alleged, at the shop of Jones on May 4. There was not, he contended, a scintilla of evidence to show that Jones had any connection or was in communication with Dr. Whitefoord, or any ground for making such a suggestion, beyond the evidence of the card which was given to the girl to take to Whitefoord. Counsel submitted that upon the first two counts of the indictment there was no case that he should be called upon to answer. This contention, however, Mr. Justice Charles overruled. Mr. Charles Mathews, in summing up the case for the Crown, pointed out that the defence had not called witnesses, and so it must be taken that, so far as the evidence was concerned, there was no contradiction. Counsel recapitulated the facts of the case, and said that if Jones had an intention in his mind, when he sent the girl Hammett to Whitefoord with the card, that an unlawful operation was to be effected, then he would be guilty of the offences alleged. With respect to Whitefoord, he urged that the force of facts clearly established guilt. Mr. Gill, in his address to the jury on behalf of Jones, urged that there was an absolute absence of material evidence upon which a jury could come to the conclusion that Jones acted with a guilty knowledge in these transactions. A number of witnesses (medical men and others) were called, who gave the prisoner (Jones) an irreproachable character. Mr. Forrest Fulton addressed the jury on behalf of the prisoner Whitefoord, and the jury, after an absence of thirty-five minutes, found both prisoners guilty. In passing sentence, Justice Charles observed that of Whitefoord it could not be said that this was the only instance in which he had acted in the manner described. Jones appeared to have fallen rather by inadvertence than design. Whitefoord he would sentence to five years' penal servitude, and Jones to eight months' hard labour.

Holidays. — The annual holiday of the employés of Messrs. Evans, Lescher & Webb, 60 Bartholomew Close, was held on July 4 at the Ship Hotel, Southend. The few hours that elapsed before dinner were passed away in patronising the various amusements the town provides for visitors. After partaking of a capital dinner, presided over by Mr. E. A. Webb, the usual toasts on such occasions—"The Queen and Royal Family," "The Firm," &c.—were gone through with the usual formalities. The afternoon was pleasantly spent in driving, rowing, &c. The party returned to town, having spent a most enjoyable day, favoured by fine weather during the whole time.—A party of thirteen (!) Cambridge chemists' assistants and apprentices met for a botanical excursion on July 2, making a trip up the Granta. Starting about 3 P.M. in boats and canoes, and collecting specimens on the way, they journeyed some six miles up the river. After a picnic tea the neighbourhood was scoured for specimens. Home was reached about 10.30. Amongst other plants, some very fine specimens of *Valeriana officinalis*, both in flower and in fruit, were found.—The Nottingham employés of the Boot Pure Drug Company had their annual outing on July 2 at Hazleford. On arrival there the company was photographed by Mr. Sinclair, branch manager. Games, including cricket, skittles, &c., were engaged in; and tea, presided over by Mr. Godson, at the Star and Garter, was provided.—Messrs. Spottiswoode & Co., printers of The Chemist and Druggist, gave a dinner to about 500 of their staff, with some representatives of their customers, at the Old Ship, Brighton, on Saturday, July 4. The party they took down totalled nearly a thousand.—Messrs. G. B. Kent & Sons, the brushmakers of Great Marlborough Street, celebrated their annual outing at Brighton on Saturday last, and dinner was served in the banqueting-hall of the Royal Pavilion, Mr. G. Harold Kent in the chair. Nearly two hundred of the staff and employés were present, and additional interest was attached to the event in consequence of the return of the senior member of the firm from America on the day previous to the trip. After the usual loyal toasts, "Success to the Firm" was given with great heartiness, numerous allusions being made to the harmony which existed between employers and employed. It was stated that the orders Mr. Kent had brought over from America were very satisfactory, and that other markets abroad, particularly Brazil, had improved in a very encouraging degree.

The British Pharmaceutical Conference. — The Cardiff local executive met again on Wednesday at the Angel Hotel, Cardiff, under the presidency of Mr. J. Munday. It was decided that the reception and *conversazione* on the Monday evening should take place in the Assembly-room of the Town Hall, instead of in the University Buildings as previously arranged. The Mayor of Cardiff (the Marquess of Bute) will not be able to attend the *conversazione*, but he has promised to be present at the opening of the conference on Tuesday morning, in the Lecture Theatre of the University College, in order to give an official welcome to the delegates. After the conclusion of the business on Tuesday, there will be an excursion by steamer to Barry Dock,

believed to be the largest single dock in the world. On landing, the party will be conducted round the dock, and afterwards escorted to the principal hotel in the place, where they will partake of refreshments. Ten years ago Barry was a fishing-village of 300 inhabitants; now it has a population of 13,000, and boasts of some very fine buildings, as well as two weekly newspapers. On the voyage in and out visitors will pass the pretty watering-place of Penarth, and the Steep and the Flat Holms, two islands midway between Cardiff and Weston-super-Mare. For Wednesday evening arrangements are being made for a trip to Caerphilly Castle, one of the most extensive ruins in the kingdom. Here probably the party will be entertained to tea in the banqueting-hall by Lord Bute, to whom the property belongs. Thursday will be the excursion day. The arrangements for this have caused the committee a good deal of anxiety, a plethora of favourite resorts offering the principal difficulty. Margam Park and the Brecon Beacons have each had their supporters, but at the meeting on Wednesday there was a very general feeling that the visit to Brecon would be too much of a "rush," and, after a good deal of discussion, Speech House was unanimously selected for the excursion. This house is really an hotel, said to be the only one belonging to the Crown. It is situated in the centre of an ancient forest of some 25,000 acres, and derives its name from the circumstance that it is the headquarters of the colliers of the Forest of Dean, who are wont to assemble at the hotel for the discussion of their grievances. The party will take train to Lydney, whence they will drive through the magnificent forest to Speech House, where they will partake of luncheon. Afterwards they will proceed in brakes to either Symonds Yat, picturesquely situated on the Wye, to the ruins of Raglan Castle, or to the ancient borough of Monmouth. At which of these places tea will be provided has not yet been decided. On Friday it is proposed to organise a visit to the Dowlais Iron-works, the Tharsis Copper-works, and the tin-stamping and enamelling works, near to Bute Docks. Altogether the programme arranged by the local executive is a most attractive one, and the members of the conference who may visit the Welsh metropolis may be safely promised a most enjoyable week.

IRISH NEWS.

Spirit Inspectors in Dublin.—Several Dublin chemists have been subjected to a searching examination by Excise officials in respect of the spirit employed by them in the manufacture of tinctures. We have not heard of any prosecutions resulting.

Alleged Libel.—The *Dublin Gazette* of Tuesday contains a notice of an action having been commenced against the *Freeman's Journal* Company (Limited), the plaintiff being Mr. John Isaac Bernard, pharmaceutical chemist, of Merrion House, Booterstown, the particulars of which, however, are not yet disclosed.

Alderman Sir James Haslett, chemist and druggist, Belfast, himself a sturdy Conservative, has successfully opposed a motion to give the local corporate employés a holiday on July 13, on the ground that the privilege, given on the day after the "Boyne Wather" exchange of civilities, might be construed by certain of the community into a political fellow-feeling of the corporation.

Accident at a Chemical Factory.—An accident occurred last week at the chemical factory belonging to Messrs. Harrington & Sons, pharmaceutical chemists, Blackpool, Cork. A man named Gibney was engaged in cutting blocks of magnesia when the teeth of the circular saw, catching in the sleeve of his coat, dragged him into the machine. The men working alongside at once reversed the action, and after considerable difficulty released the unfortunate man, whose arm was seriously injured.

SCOTCH NEWS.

Influenza in Glasgow.—Dr. Russell, the medical officer for the city, has reported to the town council that during the last fortnight there had been in Glasgow eight deaths from influenza. This is the highest fortnightly return yet issued. The ages of those who died were 1, 15, 21, 50, 54, 56, 61, and 75.

Dismissal of Chemical Workers at Irvine.—On Saturday last 130 men employed at the bichrome and soda crystal department of the Eglinton Chemical Works at Irvine, near Glasgow, were paid off in accordance with the decision of the Alkali Union. At the other chemical works in that town (the Irvine Chemical Company's) the bichrome plant has not been in operation since the concern was taken over by the syndicate six months ago.

The Edinburgh Chemists' Assistants' and Apprentices' Association had their fifth botanical excursion of the season on July 8, Craigcrook being the locality chosen. The party started from the Caledonian Station at 5.50 A.M., and returned from Craigleith Station at 7.56 A.M. There was only a small attendance. A fine variety of plants was collected. The next excursion is to Poet's Glen, Currie, on July 29, leaving Caledonian Station at 6 10 A.M., and returning from Currie at 7.58 A.M.

Serious Results from an Overdose of Exalgine.—A master-baker in Dundee got a prescription for a drachm of exalgine, to be divided into twelve powders, of which he was to take one every four hours, for neuralgia. Through some misunderstanding or negligence the chemist gave him the drachm of exalgine in one powder, and, it being taken at one time, the man fell down within five minutes of taking it, his face distorted and his limbs twisted and stiffened. Fortunately a medical man chanced to be at hand, and, under his directions, the man's life was saved; but it was about a week before he recovered the use of his legs and arms.

The Aberdeen Society of Chemists and Druggists.—The members and friends of this society took their annual outing on Thursday, July 2. The company left by the 7.50 A.M. Deeside train, and on reaching Aboyne were conveyed in brakes to Corry-Vraich, from which point they made an ascent of Mount Kean. On reaching Glen Tana, the Highland home of Sir John Cunliffe Brooks, M.P., &c., they were met by the genial baronet and his lady with a right hearty welcome, and were invited to alight on their return journey. When the party came back, Sir William was in waiting to receive them, and entertained them to a most refreshing afternoon tea. After having done the "lions" both inside and out, the president, Mr. Johnston, in the name of the company, proposed a hearty vote of thanks to Sir William and Lady Brooks for their unexpected kindness. On reaching Aboyne, there was just time for dinner and a few toasts. The train left Aboyne at 7.40 P.M., arriving at Aberdeen at 9.5.

More Glasgow Green-pea Prosecutions. — The Glasgow sanitary authorities are determined upon putting a stop to the sale of green peas adulterated with sulphate of copper. Last Saturday, James Brown, a grocer, was charged before Sheriff Spens, with selling a tin of such adulterated peas. The city analyst certified that the tin contained ·0045 per cent. of copper—a percentage equivalent to 1·26 grains of sulphate of copper per lb. of green peas. Accused pleaded "Not guilty," and the case was adjourned till the 21st for trial. It is understood that other cases will also be tried. Dr. Russell, the city medical officer, and one or two of the medical professors in the University, are to be examined on behalf of the sanitary authorities, with the view of showing that peas coloured with sulphate of copper are injurious to health. A Glasgow dealer has a notice in one of his shops stating that the green peas he sells are coloured with sulphate of copper, but denying that it is injurious to health. The cases are being watched with much interest.

The Glasgow Cessio Application.—On July 3, Daniel Clarke, manufacturing chemist, 95 Bath Street, appeared before Sheriff Balfour for examination in *cessio*. After Mr. Clarke had been sworn, his agent (Mr. Wilson) asked the sheriff to hold the action incompetent in the Glasgow Sheriff Court. The defendant had ceased to reside within the sheriffdom since April. Proceedings in *cessio* could only be taken against a party having his ordinary domicile within the jurisdiction of the court. Mr. Jubb (who appeared for the applicants) stated that Mr. Clarke was given in the new Post-office Directory as having his residence in Lanarkshire:

Mr. Wilson explained that the bondholders had taken possession, and prevented him occupying the premises. Sheriff Balfour indicated that they could not proceed against a man whose ordinary domicile was outside the sheriffdom. Mr. Wilson, in reply to a question, stated that Mr. Clarke was just now staying in Newhaven, near Edinburgh. The sheriff adjourned the diet till that day fortnight for proof as to Mr. Clarke's ordinary domicile.

MILK-POISONING IN GLASGOW.—Sheriff Guthrie, Glasgow, heard evidence on Wednesday in a peculiar case, arising out of the sale, in April last, of milk, which, on being partaken of, caused a serious illness among a great number of children in the West-end of the city. The dairyman who retailed the milk—John Bryce, junior, 25 Dover Street—sued the farmer from whom he got his supplies—Andrew Veitch, Summerton, New Kilpatrick—for 100*l*, as solatium for loss of business consequent upon the sale of the poisonous milk. The evidence was to the effect that the milk came from a cow that had calved two days before. It had a yellowish appearance, and there was a reddish sediment at the bottom of the vessel in which the milk was kept. Such milk acted as a purgative, and affected infants more than others. The milk of a cow that had calved within four or five days should not be sent out, one of the sanitary officers said. It was the practice to send it in to Glasgow on the second or third day. Dr. Russell, the officer of health for the city, said it would be risky to take milk the second day after calving. Mr. Cossan, another dairyman, admitted in cross-examination that chemicals were generally used to preserve and colour milk. He himself used such in the form of glacialine powder. He could not say what Bryce used. The Sheriff took the case, as also the question of a counter-claim by Mr. Veitch against Mr. Bryce for 98*l*. 19*s*. 8*d*., the value of the alleged poisonous milk—to avizandum.

Foreign and Colonial News.

PHARMACY IN TURKEY.—A census of all the druggists and dispensaries in the municipal circles of Turkey has just been taken; but what the object of it is has not transpired. The Faculty of Medicine appears to have issued the instructions.

GREEK MEDICINE IN INDIA.—Three dispensaries, using Greek medicines, with doctors treating diseases under the Greek system, have been opened in the City of Hyderabad. A Greek school of medicine has also been opened in connection with the principal dispensary situated in Troop Bazaar.

ARISTOL IN U.S.A.—Messrs. W. H. Schieffelin & Co. have recently protested against a U.S. Customs decision assessing aristol for duty as a chemical compound at 25 per cent. They wanted it introduced at the iodoform rate, $1.50 per lb., it being a substitute for that body. The general appraiser has, however, sustained the decision of the customs.

CARBOLIC-ACID POISONING IN GERMANY.—A factory-worker in Grüneberg had a cold, for which he consulted a physician and got a prescription for it. This was taken to the Lowen Apotheke by his wife and dispensed; but the unfortunate woman on leaving took up the wrong bottle, which proved to be carbolic acid. She could not read, so that, undeterred by the poison label, she gave her husband a teaspoonful of the acid and also took a dose herself. Both died.

REGISTERED CHEMISTS IN VICTORIA maintain their proportion to the population very closely. Each registered man on the last day of 1889 had 1439 persons as his share of the population, and on the last day of 1890 this had fallen to 1433. In 1877, when the first register was published, and it is probable that several men had not been registered, the proportion was one chemist to 1497 of the population, but in 1879 this had fallen to one to 1446, and the number has fluctuated between these limits.—*Chemist and Druggist of Australasia.*

PATENT MEDICINES IN THE UNITED STATES.—In an address recently delivered by Dr. John S. Billings on American inventions and discoveries in medicine, surgery, and practical sanitation, he stated that between the years 1880 and 1890 the number of patents granted for medicines in the United States was 540. According to the census of 1880 there were in the States 592 establishments devoted to the manufacture of drugs and chemicals, the capital invested being $28,598,458, and the annual value of the product $38,173,658. In addition to these there were 563 establishments devoted to the manufacture of patent medicines and compounds, the capital invested being $10,620,880 and the annual value of the product $14,682,494.

THE WINDOW GOT IN HIS WAY.—The last number of *The Chemist and Druggist of Australasia* reports the following police case. On May 19, at 10 P.M., a drunken man fell through the plate-glass window of Messrs. R. & J. M'Farlane's chemist's shop at Melbourne. Mr. J. M'Farlane found the man soon after lying quietly among the débris with his head partly in the window. Several fancy bottles on the window-shelves were smashed, as well as the window. The man was brought before the police magistrate next day, charged with wilfully breaking the glass. The magistrate fined him 10*s*. for drunkenness, but dismissed the charge of wilful breakage. He seemed to be of opinion that there was no proof of a wilful act. If a man by accident fell through a window in a state of sobriety or drunkenness he could not be punished for the act, but might be answerable in a civil suit.

THE SOAP TRADE IN MARSEILLES.—In the year 1823 there existed in Marseilles 23 soap-factories with 700 workmen, and producing annually 40,000 000 kilogrammes of soap, representing a value of 30,000,000f. Thirty years later, in 1861, the production of this article reached 57,000,000 kilos., of a value of 4,000,000f. Last year there were 80 factories with an output of 100,000,000 kilos., of a monetary value of 50,000,000f. Of this 10,000,000 kilos. were exported, 22,000,000 sent by coasting steamers to the French Mediterranean ports, 68,000,000 carried by railway to the interior of France, the rest being consumed in Marseilles and the department of the Bouches-du-Rhone. The entire soap production of France is estimated at 185,000,000 kilos., representing a value of 120,000,000f., so that the city of Marseilles alone supplies more than half the national production.

PRODUCTION OF PETROLEUM IN AMERICA.—The U. S Census Office has issued a bulletin on the subject of petroleum production, showing that in 1889 petroleum was produced in eleven States, namely, Pennsylvania, New York, Ohio, West Virginia, Colorado, California, Indiana, Kentucky, Illinois, Kansas, and Texas. The total production is shown to be 34,820,306 barrels, valued at $26,534,052. The returns show that of the total product of petroleum 109,891 barrels were disposed of for lubricating, 12,330,813 for fuel, and 22,379,602 for illuminating purposes. Nearly the entire amount produced in California, Indiana, and Ohio was used for fuel, while nearly the entire amount produced in Colorado, New York, Pennsylvania, and West Virginia was used for illuminating purposes. The production of States was as follows: Pennsylvania, and New York (Bradford and Alleghany field being one), 21,486,403 barrels; Ohio, 12,471,965; West Virginia, 358,269; Colorado, 316,476; California, 147,027; Indiana, 32,758; Kentucky, 5,400, Illinois, 1,460; Kansas, 500; Texas, 48.

PRODUCTION OF OLIVE OIL IN SPAIN.—The average annual yield of olive oil in Spain amounts to about 300,000,000 kilos. of oil, of which nearly half represents the production of the provinces of Andalusia, Cordova, Seville, and Jaen. Of the forty-nine Spanish provinces, including the islands, only seventeen do not cultivate the olive. These are Alava, Burgos, the Canaries, Corunna, Guipuzcoa, Leon, Lugo, Orense, Oviedo, Palencia, Pontevedra, Santander, Segovia, Soria, Valladolid, Viscaya, and Zamora. Another fourteen provinces produce only the oil necessary for the consumption of their inhabitants; these are Alicante, Almeria, Avila, the Balearic Islands, Barcelona, Cadiz, Cuenca, Grenada, Guadalajara, Huesca, Logrono, Madrid, Navarre, and Salamanca. The latter produces the least oil, 437,000 kilos. The province of Cordova produces the most, 55,200,000 kilos. The province of Seville produces about 5,000,000 kilos., and Jaen 3,500,000 kilos. About 140,000,000 kilos. of oil are required for home consumption; there only remains, therefore, an excess of about 160,000,000 kilos. for exportation.

The latter goes to South America, the Antilles, England, France, and Portugal.

THE COMMERCIAL USES OF WOLFRAM.—Inquiries have recently been set on foot by German firms as to the possibility of procuring large quantities of wolfram from New Zealand and Australia. Wolfram, or tungsten, till a comparatively recent time was known only to the chemist, and its value was only in the laboratory; but with the invention of 100-ton guns the demand for tungsten soon made that previously obscure metal well known throughout the mining world. It was found that the steel tube lining of the bore of these enormous guns could not resist the shock entailed by discharging many shots without becoming fractured, when, of course, an expensive piece of ordnance became useless. Experiments proved that the addition of a small quantity of tungsten to the fine steel in gun-making rendered the latter metal wonderfully elastic, so that the steel tube will expand under the tension of firing and contract again to its normal size a great many times before the quality of the metal is in any way impaired. The German gun-factories consequently absorb most of the tungsten found in the world, and from being a mere curiosity seen only in the laboratory of the chemist, this rare metal has acquired considerable value. Wolfram generally occurs in combination with iron in Europe; but is also found in scheelite, or tungstate of lime. It is in the latter form that it occurs in Otago, New Zealand, where the richest deposits are said to be found. The metal itself is of a white colour, extremely brittle, and heavy, the specific gravity being 19·1, or only very slightly less than that of gold.

FRENCH PHARMACEUTICAL NEWS.

(*From our Paris Correspondent.*)

REFORMED MEDICINE.—A Russian, named M. Henri Krohn, has invited the Paris Municipal Council to give his system of "reformed" medical treatment a trial in one of the city hospitals. He wishes them to choose the one in which the death-rate is the highest. If in six months a decrease is not shown alike in the mortality, the average time in curing patients, and the expenses, he offers to build, at his own cost, an infirmary for the poor. Meanwhile he has handed the chairman of the council a cheque for 4,000*l.*, which can be cashed the day his proposition is accepted. His reformed system of treatment is based on the principle that nature will effect her own cures if left to herself, and that drugs only render maladies chronic and incurable. Doctors and pharmacists alike come under his sweeping condemnation.

INFLUENCE OF DRUGS ON THE HEART.—Professor German Sée's second paper on this subject was read at the last meeting of the Academy of Medicine. He gave some further notes on the action of sparteine, digitalin, iodide of potassium, caffeine, &c., explaining and adding to what was reported in this column on June 13 last. He likewise examined at length:—(1) Strophantine, which is a very strong contracting agent; it only increases the heart's action indirectly and momentarily. (2) Convallamarine is a weak diuretic, producing extreme effects similar to digitalin; convallamarine and sparteine are indispensable auxiliaries and succedaneums to strophantine, iodide of potassium, and digitalin. (3) Lactose is a renal diuretic, without producing the least agitation on the heart and its vessels. The learned professor's ill-health necessitated the postponement of the discussion which was to follow this paper.

POISONED BY IMPRUDENCE.—M. Bougier, pharmacist, 37 Rue Geoffrey, Hilaire, absented himself from business last Sunday, for a short time, for the purpose of voting. While he was away a Madame Bardier, 26 years of age, called to buy a few grammes of sulphate of magnesia. The assistant, it is supposed, supplied sulphate of zinc. The lady took a dose the next morning, and was seized with the most violent pains. By way of explanation, M. Bougier informed M. Thuillerie, Police Commissary, that a runaway cab-horse recently broke his front window. The jars and bottles near the window had consequently been moved from their usual places. The assistant's error might in this way be explained. On the other hand a friend of the pharmacist states that it is by no means certain that the salts taken by Madame Bardier, whose condition is extremely critical, were those purchased by her from the assistant. He thinks there is a sufficient reason to suppose that she had swallowed sulphate of copper, which she could not possibly have bought at the pharmacy. M. Bougier is successor to M. Martinet, who was condemned to two years' imprisonment in 1887 for complicity in poisoning with Dr. Castlenau.

EXPERIMENTS WITH POISONS.—By way of a sequel to the paper recently read by Dr. Cornil, before the Academy of Medicine, concerning the experiment made by a foreign doctor, which consisted in grafting a cancer from the breast of one woman to that of another, Dr. Ch. Daremberg gave, last week, an interesting account of the practice, so common in the Middle Ages, of experimenting with poisons on condemned criminals. He mentions the two malefactors made over by Como de Medicis to Falloppe of Pisa, who administered to each a dose of 8 grammes of opium. The one who survived was pardoned, but the scientist administered a second dose of the same quantity, which killed him. At Bologna the criminals experimented on were not informed of the fact, as terror might heighten the effects of the poison, and false conclusions be deduced. At Mantua and Florence arsenic was administered to human beings; the Cardinal Archbishop of Ravenna, Pope Clement VII., made tests, generally unsuccessful, of remedies for aconite, corrosive sublimate, &c. At Paris Charles IX. invited Ambroise Paré to test the anti-toxic action of bezoar; the man to whom it was administered died in terrible agony, saying he would have preferred the gallows a thousand times. Dr. Daremberg cited, in conclusion, the numerous inoculations and injections made in more recent times, principally with regard to syphilitic disorders. He stated that between 1831 and 1837 Dr. Ricord re-inoculated 1,049 persons (suffering from simple non-syphilitic chancre) with a soft chancre. Lindsmann inoculated 2,200 people in the same way. Many doctors introducing new remedies—like Jenner, Koch, and Pasteur's pupils—prove their faith in their treatments by submitting to them personally. Rabuteau killed himself in testing new medicaments.

THE NEW CUSTOMS TARIFF.—The principal feature of the discussion in the Chamber of Deputies on the Customs tariff on chemicals was the absence of anything like debate, and the wonderful unanimity and bewildering celerity with which the recommendations of the commission were adopted. Bromine, bromides, phosphorus, iodine, and iodides were quickly disposed of. M. Dislèse, having spoken in the name of the Paris manufacturers of hydrochloric acid, the Chamber fixed the rate at 30 centimes instead of 35 centimes for this article. For all acids and oxides the rates recommended by the commission were passed. Cobalt ore is to be admitted free, but pure oxide of cobalt is to be protected by a duty of 350f. (minimum tariff). For ammonia, potash, soda, salts of various kinds, borax, carbonates, chlorides and chlorates, chromates, glycerine, nitrates, silicates, and sulphate of alumina the rates were adopted without debate. M. le Govrian demanded a duty of 8f. (minimum tariff) on sulphate of copper in the interests of vine-culture, but M. Dislèse upheld his proposition for a rate of 3f., which was adopted. M. de Ramel asked for a duty on sulphate of magnesia, but this was rejected. The Minister of Commerce demanded free admission for superphosphates of lime in the interests of agriculture. Too much chemical manure, he said, could not be used. The Chamber supported his views, and exemption of duty on this article was voted. Cochineal, kermes grains, gum lac, indigo, cachou (cutch and terra Japonica), litmus, alizarine, ultramarine, Prussian blue, carmine, blacklead, ochres, and sienna earth all came rapidly under review. Perfumery, soap, prepared spices, English and other sauces, and chicory (burnt and ground) were disposed of in a few minutes. A halt was at length made at starch and amidine. The Chamber rose doubtless in the consciousness that the quantity of business gone through left little room for dissatisfaction, whatever might be thought of the quality.

"THIS set of teeth you made me is too big," said the patron. "Yes, sir; sit down in the chair and I'll enlarge your mouth a little," said the dentist.

Pharmaceutical Society of Ireland.

On Wednesday, July 1, the monthly meeting of the Council of this Society was held at No. 11 Harcourt Street, Dublin, at 3 o'clock, the Vice-President, Mr. William F. Wells, in the chair. The other members of the Council present were Dr. Burnes, Messrs. Grindley, Rankin, Hodgson (treasurer), Beggs, Simpson, Johnston, and Robinson.

No Power to Extend Time.

The Registrar read a letter from the Privy Council, dated June 8, stating that the Lords Justices had had before them a resolution passed by the Council on June 3 in reference to the time for receiving applications under section 7 of the Pharmacy (Ireland) Amendment Act, and were advised that there was no power to alter the dates fixed by section 7 of that Act.

The Vice-President: This makes the resolution which we passed of no effect. The object of the resolution was to extend the time within which assistants who had been in business before 1875 could come in for a modified examination at a reduced fee from June 1 until August 18. The regulation permitting that modified examination and reduced fee was only passed by the Privy Council a few days before June 1, and the last day for applying to come in under it was June 1. This letter also decided another thing, namely, that any who did not apply before June 1 to be registered as druggists under that section cannot do so now. We have no power to accept any certificate that is not dated prior to June 2.

Mr. Hodgson: I thought you had up to August 18 for persons who were in business before 1875.

The Vice-President: Druggists who were in business prior to 1875 have up to August 18.

Mr. Grindley: We thought to extend that to the men who went into business in the interval between that date and the present, and to the assistants, and the Privy Council have refused both.

The Pharmaceutical and the Medical Preliminaries.

The Registrar read a letter dated June 6 from Dr. Heard, secretary to the Irish Branch Medical Council, in which the writer replied to the inquiry of the Pharmaceutical Council whether the Branch Medical Council had defined the additional subjects to be required in the case of applicants for registration as medical students who held the Preliminary certificate of the Society. The writer inferred from the fact of the application of Mr. Ernest Bourke for registration as a medical student on the combined certificates of the Society and of the Physicians and Surgeons of Ireland having been refused by the Branch Council that that Council had not seen its way to accepting any of the subjects contained in the Preliminary examination of the Pharmaceutical Society of Ireland as sufficient to qualify for entrance on the study of medicine.

The Vice-President: It certainly is a very great hardship upon this gentleman. He made up additional subjects, on the faith of which he presented himself, and then they refused to accept him.

The Registrar: We have a letter from the Medical Council in London in which the additional subjects that were required are named; these were given to Mr. Bourke and he passed in them.

Mr. Ferrall (Registrar) read another letter from the General Medical Council, enclosing copies of a report of that Council, and resolutions passed by its education committee in relation to Preliminary examinations in general education, which they require to be passed previous to the commencement of medical study. Mr. Ferrall stated that the effect of these resolutions was that only Preliminary examinations in Trinity College and the Royal University, and under the Board of Intermediate Education, would be accepted in future as qualifying for entrance upon medical study. A number of other Preliminary examinations besides that of the Pharmaceutical Society of Ireland were being struck off.

The Vice-President: The War Office complained that several medical men were not able to spell, and the Medical Council laid the blame on the Preliminary examinations, and decided, as the Registrar says, to strike off nearly all those that they had previously accepted. They are striking off the College of Surgeons and the Pharmaceutical Society of Great Britain. Of course they have a right to do this; but in the case of Mr. Bourke their decision is most unjust. They told him if he made up certain subjects and passed in them they would accept him; and when he did so, they told him he could not be accepted.

Mr. Hodgson: I do not suppose it makes a great deal of difference to us?

The Vice-President: Practically it is rather an advantage to us; for, if a young man who has passed the medical Preliminary requires to come to us, he has to pay us two guineas for being registered here, whilst we have not the expense of the examining of him; while, if he passes our examination, we have to pay his examiners. So that in the end it will be for our advantage.

Mr. Simpson: It will prevent young men coming to our business, and, after two or three years, leaving and going to the medical profession.

The Vice-President: I suppose we can take no action in the matter. We have nothing to do but to mark the letter "read."

Mr. Rankin: Is the Pharmaceutical Society of Great Britain or any of the other societies taking action?

Mr. Grindley: It was discussed; but they are taking no action.

Mr. Hodgson: What can we do? We did take action, and we have been snubbed in trying to defend the rights of this young man.

Mr. Johnston: They ignore your qualification.

The Vice-President: If the other societies do anything, of course we can move in the matter too.

Mr. Hodgson: If our kindred society at the other side move in the matter, they will very likely inform us of it. At all events, we shall see their action in their journal, and then there will be no objection to united action being taken.

Mr. Rankin: Would it not be well to address a letter to them on the subject?

Mr. Grindley: We have always been on a friendly footing with them.

Correspondence.

The Pharmaceutical Society of Great Britain wrote to acknowledge a copy of the Irish Society's Calendar.

The Secretary of the International Pharmaceutical Congress Committee at Milan wrote to say that the proposed Congress there was abandoned.

The secretaries of the local reception committee for the Society of Chemical Industry wrote to ask for contributions. The Vice-President said they could not do this as a Council, but any members who wished might do so.

Mr. A. H. Jones, chemist and druggist, Doneraile, wrote to say he would discontinue the use of the title "Medical Hall," which the Council had told him was misleading. He said, in using it, it had never been intended to lead persons to suppose that he compounded medical prescriptions.

Mr. Frank T. Gordon, 29 Richmond Hill, Cork, wrote, stating that, after he had passed his examination as a registered druggist, under section 8 of the Amending Act, and paid a fee of 4*l.* 4*s.*, he had found that, having been an assistant prior to 1875, he was eligible for examination on modified terms, under section 7. He, therefore, asked the Council to refund him 1*l.* 13*s.* 6*d.*, the difference between the fees in the two cases. Mr. Hodgson suggested a reply saying the Council was very sorry, but could not accede to this request. This was agreed to.

Mr. J. T. Holmes, M.P.S., wrote to ask if it is legal for an unqualified assistant to compound prescriptions either in the presence or absence of his qualified proprietor. The reply ordered to be sent to Mr. Holmes, on the motion of Dr. Burnes, seconded by Mr. Grindley, was to refer him to sections 30 of the Pharmacy Act of 1875 and 17 of the Act of 1890. The Vice-President remarked that the Council had hitherto abstained from giving opinions on matters of law, and that, if Mr. Holmes desired to test the question in a court of law, he could do so.

Mr. A. B. C. Orchard, 12 Effra Road, Rathmines, wrote asking to have the 100-hours course of practical chemistry dispensed with in his case on the following, amongst other,

grounds:—He had been apprentice or assistant in various pharmaceutical establishments in England and Ireland during the last twenty-two years; he had had the English qualification for the last ten years; he had spent more than 100 hours in a private school of chemistry, and enclosed a certificate to that effect from Mr. Spencer Turner; and he had passed the first and second professional examinations of the conjoint board of the Physicians and Surgeons of London. It was agreed that no such concession could be made.

Reports were received from the examiners at the druggists' examinations held recently in Dublin and Belfast.

Chemists and Druggists.

A report was read from the Declarations Committee, from which it appeared that the following gentlemen had been accepted for registration as chemists and druggists, having been in business on or before August 11, 1875: John Acheson, Portadown; Alexander Adams, Kilrea; Walter Burns, Belfast; Laurence Byrne, Rathdrum; Mary A. Byrne, Ballinakill; Frances S Caldwell, Ballybofey; Wm. Clear, Clare; Joseph Collins, Wicklow; Arthur Crory, Kilkeel; Elizabeth M. Cunningham, Ballymore; E. L. Daly, Ennistymon; Denis Donohoe, Clonegal; Patrick Egan, Tullamore; Margaret A. Egan, Kilcullen; Wm. J. Faris, Dublin; Michael Farrell, Edgeworthstown; Benjamin W. Fayle, Parsonstown; Benjamin Graham, Omagh; John Laven, Elphin; Joseph Lawler, Rathvilly; Maria Leonard, Kells; Thomas Madden, Ballinlough; Thomas May, Belfast; George B. McCready, Donaghadee; Robert M. McElwee, Dublin; George Meares, Moyrore; Rose Morris, Crossmaglen; Michael J. O'Brien, Roscommon; Joseph O'Neill, Bagnalstown; Wm. Patterson, Carnmoney; James Phelan, Aughrim, co. Wicklow; George Potter, Oldcastle; John Richardson, Portadown; Patrick M. Scanlon, Ballinasloe; Wentworth Taylor, Tinahely; Henry Johall, Moy; Patrick Waldron, Claremorris; Herbert Webb, Baltinglass; George E. White, Tramore; William White, Waterford; and Thomas Wilson, Armoy.

Assistants' Examinations.

The School Committee submitted regulations relative to the examination for pharmaceutical chemists' assistants for adoption by the Council previous to their being laid before the Privy Council for approval. The Vice-President said these regulations had been under the consideration of the committee for a full month, and they had been shown to several other members of the Council. The regulations were approved of.

The New House.

A report of the House and General Purposes Committee stated that they had authorised Mr. Hodgson (the treasurer) to purchase the house, No. 67 Lower Mount Street, but not to exceed 750*l*. The Vice-President moved, pursuant to notice, that the committee be empowered to expend such sums as might be necessary in fitting up the house. They would, of course, incur no unnecessary expenditure. Mr. Hodgson said the house was in perfect order.

The Vice-President remarked that new benches would have to be purchased for the examination hall.

Mr. Hodgson: It is desirable that the examination hall should not be used for school purposes.

The Vice-President: The school has been a greater success than we anticipated. When Professor Tichborne went into the figures, he said we should have about twenty students the first year. Now, in a year and a half we have had forty students. In reply to Mr. Rankin the Vice-President said the house would be ready for the annual meeting in October. As soon as they obtained possession the Registrar would move there.

The motion of the Vice-President was unanimously agreed to.

Appointments and Elections.

Mr. Grindley and Mr. Johnston were appointed visitors to attend the druggists' examinations to be held at 11 Harcourt Street on Wednesday and Thursday, July 8 and 9; and Mr. Lyons and Mr. Rankin were appointed visitors to attend the druggists' examination to be held in Belfast. It was intimated by the Vice-President that Mr. Sunner had been requested to act as visitor at the Cork examination.

Mr. Joseph Smyth, chemist and druggist, of Wicklow, was elected an Associate Druggist, and Mr. T. R. Connolly, of Dundalk, a member of the Society.

The following registered druggists were nominated for election as Associate Druggists: Messrs. Jacob Walsh, York Street, Belfast; Patrick Gribbon, Magherafelt; James Richardson, Anne Street, Belfast; Hamilton W. McMaster, 26 Glenalpine Street, Belfast; William Haslett, London Terrace, Belfast; John Gray, English Street, Armagh; William Maxwell, Foyle Street, Londonderry; Thomas McDowell, 180 Mount Pottinger Road, Belfast; Samuel M. Read, 80 Albert Bridge Road, Belfast; James Grills, 3 Gloucesterville, Belfast; Robert Spence, Castleblayney; Thomas McCabe, Ballybay; and Patrick Fee, Ballybay.

Some financial business having been disposed of, the Council adjourned.

Pharmaceutical Licence Examination.—The following have passed:—Messrs. John Gorman, Belfast; John Black, Dublin; Robert R. Ritson, Belfast; Michael S. Lalor, Athy; William R S. Gilbert, Ballina; George W. Camlin, Belfast; Denis P. Brosnan, Listowel; Edward J. O'Callaghan, Dublin; Joseph J. Broderick, Listowel; John Thompson, Belfast; George Strong, Kingstown; Joseph S. Evans, Dublin. One candidate failed to pass.

Scientific Notes:

On Chemistry, Pharmacy, Botany, Materia Medica, &c. Original, Selected, and Translated.

The Metallurgy of Bismuth.

Instead of the costly and tedious wet-process previously in use for freeing bismuth from the small but detrimental trace of copper so frequently accompanying it, Mr. E. Matthey a short time ago adopted the method of fusion with bismuth sulphide (*Proc. Roy. Soc.*). The disadvantage of this latter process, however, is that it necessitates a temperature sufficiently elevated to fuse the bismuth sulphide, which, unless very great care is taken, causes a loss of bismuth by volatilisation. Mr. Matthey has since found that this loss can be avoided if, instead of employing bismuth sulphide, a small proportion of sodium monosulphide be stirred into the fused alloy at a temperature just above the melting-point of the sulphide. By this means 90 per cent. of the bismuth can be obtained entirely free from copper, the remaining 10 per cent. (skimmings), which contain the copper, being worked up again.—*Journ. S. C. I.*

Petroleumised Turpentine.

In the note which we recently published on this subject it was mentioned that Mr. Slocomb considered any turpentine below sp. gr. ·863 to be adulterated. Following this up in the *Druggists' Circular*, Mr. J. G. Nagelvoort questions if this is not too hard-and-fast a figure. He has recently examined nine barrels of turpentine, and one of them came out at sp. gr. ·854; but Mr. Nagelvoort considered it a genuine article, because it had the high dextrogyre rotation (24° for [α_D]) peculiar to American turpentine; it left, after warming on a sand-bath, only a little residue of a natural odour and of the consistence of resin, and during the evaporation Mr. Nagelvoort observed no foreign odour suggestive of petroleum-products. It seems that the vital question is: Is it possible to so adulterate turpentine that it will still have a high rotation in the polariscope, and is partly manufactured from petroleum-products? No clue is to be found for the detection of adulteration in the solubility of turpentine in alcohol. Mr. Nagelvoort "assayed" genuine turpentine according to the method first recommended by Hager and followed also by Allen—viz., to dissolve the oil in absolute alcohol and to add water from a burette until the mixture remains opalescent after agitation. It is far easier to read where a clear liquid becomes turbid than the reverse. Oil of turpentine does not appear in Allen's column for solubility of essential oils in alcohol. Dieterich records 3·4 c.c. of water. Mr. Nagelvoort's turpentine in absolute alcohol (1 to 10) required 1·5 c.c. of water.

SOCIETY OF CHEMICAL INDUSTRY.

THE tenth annual general meeting of the Society of Chemical Industry was held on Wednesday, July 8, in the Examination Hall of Trinity College, Dublin. Over two hundred members attended the meeting; and the general consensus of opinion of those present was that those who had braved a somewhat stormy passage (the London contingent alone being forty or thereabouts) were amply repaid by the cordiality of their reception, and by the very inviting programme of events, scientific and social, provided for their entertainment during their visit to the Irish capital.

In the unavoidable absence of the Lord Mayor, the members were received by Sir Henry Cochrane, Deputy-Lieutenant; and among those who were either present at the first function of the meeting or arrived during its progress were:—The President, Mr. E. Rider Cook; the President-elect, Professor J. Emerson Reynolds, F.R.S.; the Rev. Dr. Haughton, F.R.S., Dr. J. Campbell-Brown, Mr. Hen. Brunner, Sir Robert Ball, F.R.S., Dr. Ball (Director of the Science and Art Museum), Sir Charles Cameron, Professor R. C. Tichborne, Mr. Alf. E. Fletcher, Colonel David Gamble, Dr. W. S. Squire, Dr. J. Kolb, Mr. C. C. Hutchinson, Mr. S. H. Johnson, Mr. John Pattinson of Glasgow, Mr. Pattinson of Newcastle, Mr. Thomas Tyrer (chairman of the London Section), Mr. T. W. B. Mumford (secretary of the London Section), Mr. B. E. R. Newlands, Mr. R. D. Pullar, Mr. J. Spiller, Sir N. A. Staples, Bart., Mr. Norman Tate, and Messrs. W. F. Moore and MacNeight (of Messrs. Hugh Moore & Co.).

The proceedings of the meeting were opened by

Dr. HAUGHTON, who, on behalf of the governors of the university, gave a hearty welcome to the Society on its first appearance in Ireland. Their motives in doing so, he said, were not altogether unselfish. Irishmen recognised that they were backward in industrial chemistry. It was not their own fault, and he dared not say that it was the fault of Providence; but it was certain that, whoever was responsible for giving England, Scotland, and Wales a plentiful supply of coal, had acted the part of an old stepmother to Ireland in that respect. He believed that if Irishmen had coal they would lead the van in chemical industry. As it was, they welcomed the Society in the hope that by mutual contact the visitors would carry away a good impression of Ireland, and on their part give some stimulation to those chemical industries which were possible in Ireland.

Professor EMERSON REYNOLDS wished, on behalf of the professoriate of the university, to extend as hearty a welcome as had been given by Dr. Haughton on the part of the governors. As an "industrious chemist," he would not detain the meeting further than to say that every effort would be made to enable the visitors to overcome those difficulties in the way of exploration which were inherent to a place of antiquity like Dublin and its university.

The PRESIDENT, in reply, thanked the Reception Committee and the authorities generally for the generous and sincere hospitality which had been extended to the Society, and re-echoed the hope expressed by Dr. Haughton that the visit would be to the advantage of both hosts and guests.

The minutes of the last annual meeting having been read and confirmed,

Professor C. R. C. Tichborne and Mr. C. C. Hutchinson were appointed scrutators of the ballot for the election of the officers of the Society for the ensuing year.

The PRESIDENT then called upon the Secretary to read the

REPORT OF THE COUNCIL.

We have the honour to report that the number of members on the register is 2,697, as compared with 2,595 at the last annual meeting. During the year 260 new members have been elected, and 158 have been removed by death, resignation, and other causes, showing a net gain of 102.

E. RIDER COOK,

President of the Society of Chemical Industry.

Among those who have died are Professor T. Carnelley, of the University of Aberdeen; Mr. C. H. Gimingham, at one time assistant to Mr. Crookes, and latterly manager of the Swan Light Works; Mr. J. Chambers Nicholson, of the late firm of Simpson, Maule & Nicholson; Mr. W. Lant Carpenter, an indefatigable member of the Publication Committee; Mr. Charles Marvin, the Russian traveller; Dr. M. Bechler, of the Manbré Saccharine Company; Mr. C. H. Grundtvig, killed by an accident in Greece; Mr. F. C. Blake, of Pittsburgh; and Mr. George Dyson, of Hurworth-on-Tees.

During the past session seventy-seven papers have appeared in the journal, as against eighty-seven the year before.

Ten years having now passed since the foundation of the society, a few statistics are presented, showing the progress of the journal and membership during that period. In 1882 each number of the journal averaged 43 pages of matter; in 1884, 56 pages; in 1886, 61 pages; in 1888, 79 pages; and in 1890, 104 pages. In 1882 the membership was 1,140; in 1884, 1,809; in 1886, 2,271; in 1888, 2,395; in 1890, 2,595. The invested funds of the society amount to 3,880*l.* 3*s.* 3*d.*, as against 3,688*l.* 15*s.* 9*d.* last year. The revenue last year, as will be seen from the treasurer's report, exceeded the expenditure only by 107*l.* 7*s.* 11*d.*, as against 607*l.* in 1889, the increased size of the journal being responsible for the whole outlay. If the rate of increase of the journal is to be maintained, it is most desirable that we should have larger accessions of members.

In November last a committee was appointed to consider certain proposals of the Manchester Chamber of Commerce to amend the law of patents. Upon the report of that committee, the Council resolved to support the Chamber in endeavouring to limit the period during which inventors can rid their patents of rash and inconvenient claims to two years after filing their original application. Should this alteration of the law receive the sanction of Parliament, the speculative patentee will no longer hamper the chemical industries.

In May last a Yorkshire Section of the Society was formed,

with Sir James Kitson as its first chairman. This makes the seventh, and the cordiality of your welcome induces a hope of the early formation of an eighth.

It will be remembered that we had intended to meet in Birmingham this year, but it became clear last autumn that the meeting could not be arranged. The Council, however, received a hearty invitation from a reception committee in Dublin, with the result that the society is holding its annual meeting for 1891 within the walls of Trinity College.

On the motion of the President, seconded by Mr. H. Brunner, the report was adopted by a unanimous vote.

The Treasurer's Report.

The Treasurer-President then presented his annual report, which showed that the revenue for the year had been 4,015*l.* 13*s.* 10*d.*, against an expenditure of 3,908*l.* 5*s.* 11*d.*, thus leaving a balance on the credit side of 107*l.* 7*s.* 11*d.* The narrowness of the margin as compared with last year was accounted for by increased expenditure on the Society's journal, this item alone being 3,031*l.*, as against 2,256*l.* in 1889-90. The treasurer's cash account showed that a sum of 3,880*l.* 3*s.* 3*d.* had been invested in Metropolitan 3-per-cent. stock, while a balance of about 370*l.* remained in hand.

Ireland and Chemical Industry.

Before proceeding with the next item on the agenda,

The President said that Dr. Haughton's remarks as to Ireland's backwardness in industrial chemistry being due to her scarce supply of fuel were, he thought, limited by that courtesy which one expected from an Irish gentleman. Without touching on politics, however, he might say that every thinking and reading Englishman recognised that England, no less than Providence, had in the past played a sort of step-motherly part towards Irish industries, and every right-thinking Englishman was now anxious to make amends for the wrongs inflicted on Ireland in that way. He hoped that the Society of Chemical Industry would be able to play no unimportant part in promoting Ireland's future prosperity. There was plenty of scope for their work in Ireland, which was mainly to secure a thoroughly efficient carrying out of industrial chemical processes, and the utilisation of matter which had hitherto been wasted in the chemical industries. They might well hope to succeed in their endeavours, for substances and natural forces, unlike societies and nations, were always certain in their operations if they were properly used. Sir Robert Kain had shown that Ireland was rich in mineral products, and much might be done in future in the realisation of those resources. As an instance of what might be done in the way of utilising waste products, he might mention the remarkable process recently adopted by Messrs. Guinness, by which they recovered their carbonic-acid gas to to the extent of about thirty tons of liquid CO_2 per day. What would become of it he did not know; but his experience was that such discoveries generally constituted the starting-point of some new and great industry. (Great applause.)

Then followed

The President's Address.

The President said that some of his predecessors in the chair had been able in their addresses to give the results of original work. On several occasions the presidential addresses had dealt with the recovery and utilisation of waste products, and it might be expected, perhaps, that the first soapmaker who occupied this chair would say something of the interesting recovery of glycerine from waste soap-leys. He was sorry to say that though his firm had benefited by the utilisation of this product, which was formerly wasted, he was not able to give any information upon the subject not already well known. As a member of the late Metropolitan Board of Works, he took a great interest for many years in the question of the

Utilisation of Sewage,

and he chose this as his subject, which, he said, would have to be dealt with sooner or later by the chemical engineer, to whom we must look to save the country from the enormous loss at present incurred by the want of scientific treatment of perhaps the most important waste product of our time.

Mr. Cook said:—At the Jubilee dinner of the Chemical Society, Lord Salisbury, in his exceedingly interesting and lucid speech, said: — "I am an agriculturist under the guidance of Dr. Gilbert and others, and we compass sea and land in order to bring manure to make our products grow. What is manure? Why, it is an impure form of the carbon and nitrogen in which these products are bathed in circumambient air every day of their lives. I trust that the chemistry of the future will tell us why we have to go to Chili for these things, and why we cannot take them from the air around us."

Now, we all remember the interesting paper of Mr. Mond on the question of catching the ammonia formed during the combustion of coal in furnaces, and I suppose the time will soon come when ammonia so obtained will be used for agricultural purposes.

We cannot tell what may be done in the future towards utilising the nitrogen of the atmosphere for the purpose of chemical manures, but it is a certain fact that if we can utilise the sewage of the country we shall be absolutely independent of Chili, and we ought to be able to save the 2,500,000*l* per annum which we pay for imported phosphates and nitrates. [The President quoted figures from the Board of Trade returns to show that this amount is about the cost of the imports.]

The Manganate Treatment of Sewage.

In 1836 the Metropolitan Board of Works attempted to deodorise the sewage by pouring manganate of soda and sulphuric acid into the sewers. In 1886 the cost of this was 107,063*l.*, when only two grains of manganate to the gallon of sewage were used. It occurred to me that this expenditure was practically thrown away, and I therefore made some experiments from which I found that the average power possessed by sewage of neutralising manganate of soda (20 per cent.) was as follows:—

In 1 minute	30 grains
5 minutes	37 „
3 hours	67 „

that is to say, 287 tons of manganate would have been neutralised by 150,000,000 gallons of sewage in one minute, while the quantity used by the board was only 18 2 tons for that quantity. I not only reported these facts to the board, but demonstrated them by experiments, with the result that the board abandoned the idea of attempting to deodorise the sewage in the sewers, and in 1887 confined its operations to the effluent, after the sludge had been settled from it, and to sewage when it was actually being discharged into the Thames. The gain to the ratepayers was nearly 50,000*l.* in 1887, as the total cost of chemicals and labour that year was only 57,760*l*, compared with 107,063*l.* in 1886.

Pure Water.

The magnitude of the evil resulting from the pollution of water-sources is indicated by the fact that many of our large towns construct works to obtain their water-supply from great distances, because the water upon which they naturally ought to rely has been polluted; *e.g.*, Glasgow from Loch Katrine, Manchester from Thirlmere, &c. It has been proposed that London should get its supply from the Welsh lakes. The cost of these undertakings is enormous, and the result can hardly be considered satisfactory. In the event of war or domestic disturbance in the country the position of places thus supplied would be very critical. And yet, as population continues to increase, unless the pollution of water-sources is stopped, the number of large towns and cities which have to expend money in this way, and place themselves in this perilous position, will be constantly augmented.

The Value of Sewage.

I suppose there can be little doubt that, if properly utilised, the sewage of a country, together with the organic remains, such as the bones and the blood of animals which have been killed, should provide a fresh supply of food enough for the inhabitants of the country.

The food consumed by human beings and by animals may be said to be converted into—

(1.) Their bodies.

(2.) The substances associated with the air they give out from their lungs.

(3.) Their excreta.

Their bodies sooner or later return to the soil, the gases exhaled are dissolved by the rain and dew and restored to the earth. Now if, instead of sending the excreta into the water, they were returned to the soil, the whole of the matter taken from it to form food would have been restored, and be available for the new crops of food for man and beast. Thus, speaking in general terms, the food of one year would have been so returned to the earth as to enable it to produce the food of the next year. So far, then, as we run this resultant of food away into the sea, in just so much do we impoverish the soil and waste the resources of our country by buying substitutes from foreign countries.

I do not suppose, as a writer to the *Times* stated some time since, that this is a loss to the earth as a whole; fortunately for us, nature is ever repairing our blunders, and without attempting to trace the process, I have no doubt that in seaweed and in sea-life is stored up the wealth which we so lavishly squander—wealth which is recovered from time to time in a small degree by our own country, but largely by other nations of the globe.

Mr. Cook then quoted figures to show that the imports of foreign food for man and beast into this country amount to at least 35,000,000*l.* per annum. Adding together, therefore, the cost of foreign fertilisers, of food which we ought to grow but have to buy, and the expenditure on works rendered necessary by the contamination of the water-supplies which nature has placed close to our hands, but which we are compelled to abandon for more distant sources, he showed that the total cannot be less than 40,000,000*l.* per annum.

Evils of the Sewage System.

A moment's consideration will lead a thoughtful man to see that in attaining the comfort and cleanliness which the water-carriage system of sewage provides, we have had to take associated with them some terrible evils. But for the system of water-carriage we should be ignorant of that subtle and insidious enemy sewer gas, which is no respecter of persons, and finds its victims in the houses of the wealthy, where bath-rooms and sanitary arrangements are most complete, quite as much as in the neglected dwellings of the poor; a gas which cannot be dealt with by any system of ventilation, but is liable to be ejected suddenly from the sewers by storm-showers or barometric changes, which we may meet with at any ventilator in the streets, and which may invade our homes at any time through a faulty pipe or a defective trap. In the sewers there exist all the conditions for the generation of this insidious and dangerous enemy, for the rise and fall of sewage has the effect of continually exposing organic matter upon an extended porous surface of brickwork to the influence of moisture and warmth in an atmosphere deficient in oxygen.

The dilution of the sewage by water also practically destroys its value as a fertiliser. There are many hills and moorlands in this country which contain thousands of pounds' worth of silver and lead, but the cost of getting these metals is larger than the value of them when they have been obtained, and so they remain unutilised and, to all intents and purposes, worthless. And so with sewage; it contains matter of intrinsic value, but owing to dilution that value is unavailable, as, in order to obtain a pound's worth of value, more than a sovereign has to be spent.

But, thirdly, the dilution in houses is followed necessarily by a further dilution in the sewers.

I know it has often been proposed that a system of double sewers might be arranged, one set for the purpose of sewage proper, the other set for the purpose of carrying away surface water.

Those who suggest this are ignorant of what all sewage engineers know—that when once sewage is turned into a sewer it is absolutely necessary to make use of the rainfall in order to flush the sewers and keep them in even a tolerable condition of wholesomeness.

The huge sewers in London, some of which are eleven and twelve feet in diameter, have in some places, and for distances of several miles, a fall of only one foot to the mile. The condition of these would be better imagined than described if they were not flushed by the rainfall.

The result of this second dilution is to render the volume of sewage simply appalling from its magnitude, and to reduce its actual value to a minimum.

The average daily flow of sewage dealt with by the Metropolitan Board was 150,000,000 gallons, and I suppose since 1888 that quantity has increased rather than decreased. This equals 670,000 tons per day. When settled, and a comparatively clear affluent is run off, it leaves 3,000 tons of sludge, which, when pressed in filter-presses, can be reduced to 850 tons of cake, composed of 30 per cent. of mineral matter, 14 per cent. of organic matter, and 56 per cent. of water.

An analysis of a gallon of sewage gives 3 grains of ammonia to a gallon, or 0·004 per cent. Phosphoric acid, inappreciable.

So that the ammonia is the only valuable constituent; and taking sulphate of ammonia, 25-per-cent. ammonia, at 12*l.* 10*s.* per ton, a unit of ammonia in manure is worth about 10*s.* per ton, so that the ammonia in a ton of London sewage is worth 0·004 of 10*s.*, which is nearly ½*d.*

What can be done with a ton of sewage for ½*d.*? It cannot be pumped, or settled, or pressed without expending far more than that sum, so that it may be said to be absolutely valueless; and the simple statement of this fact should convince speculators that by whatever process it is sought to recover this value, the working of such process must be ruinous. Can it be saved?

From this it will be seen that all hope of realising money value from the sewage, while the water-carriage system is continued, must be abandoned; that the country must be content to put up with the huge loss which it annually suffers; and that the question which local authorities have to decide is not how much they can obtain for what ought to be a valuable product, but how shall they get rid, at the lowest cost to the ratepayers, of that which, by our folly in ignoring the laws of nature, we have converted into a nuisance.

It must be borne in mind, however, that this water-carriage system, which is so disastrous, seems to be, after the experience of the last twenty or thirty years, the very best that the engineer and the sanitary engineer can do for us. Are we, then, to be content to let matters rest as they are? May we not hope that the chemist, who has already turned into value so many waste products, primarily for the good of the manufacturer, but necessarily also for the good of the country, will find some means of saving this enormous annual loss?

In the East, and in comparatively uncivilised countries, the sewage, in ways more or less primitive, is placed on the soil, and even in over-populated countries like China the result of this is that the soil produces food for the population without imports. China is nearly as densely populated as England. Its area, as given in the "Encyclopædia Britannica," is 1,399,609 square miles, population 370,323,545, or about 264 persons per square mile. Taking the area of the United Kingdom at 120,859 square miles, and population 37,075,000 (1887), it gives 306 persons per square mile; and yet, while Great Britain, as we have seen, imports vast quantities of food-stuffs, it is stated in the last edition of the "Encyclopædia Britannica" that "imports into China do not appear to include food-stuffs."

In our own country, Mr. Moule by his earth-closet has achieved a certain amount of success, not by taking the sewage to the earth, but by bringing the earth to the sewage. But the cost of the carriage of the earth, and afterwards of the mixture, is of such importance that his system is not applicable to large towns or cities.

At Warrington, at Nottingham, and other places, I am informed, a certain amount of success is obtained by the adoption of the "pail system," the manure being much appreciated by neighbouring farmers, and realising a substantial sum. The want, however, of efficient deodorisation still causes the system to have considerable drawbacks from a nuisance point of view.

Is it beyond hope that some chemical engineer will find not only the chemicals, but some efficient and convenient mode of applying them, by the use of which the refuse of each house may be quickly desiccated and deodorised, and remain so for a sufficiently long time to enable collection to be made from house to house, even in large towns, and the product conveyed to the country without any nuisance being occasioned, there to be restored to the soil by the farmers?

The requirements of a successful solution of the problem seem to me to be—

(*a*) The finding of a chemical or chemicals, the use of moderate quantities of which shall immediately deodorise excreta, and which shall arrest decomposition for some days.

(*b*) The construction of an apparatus, with or without the means of separating the solid from the liquid excreta, for the application of these chemicals, which, while quickly removing the contents to a receptacle, shall be simple and cleanly in its action.

(*c*.) The provision of a receptacle in each house which shall be readily accessible to the public authority, and which can be conveniently emptied.

Whether the problem will be solved or not remains to be seen, but the object I have in view will be answered if I succeed in convincing the members of our society—

(1) That there *is* a great unsolved problem, involving the health as well as the wealth of the country, worthy of their attention.

(2) That no good will be done in the direction of sewage utilisation while the present water-carriage, system continues; and

(3) That if public opinion will not admit of any interference with that system it is useless to devote time and trouble to any question other than how to get rid of sewage at the least cost to the community, and in doing so, how to avoid spoiling the water-supplies of our ever-growing population.

The address was received with great applause, on the conclusion of which

Professor EMERSON REYNOLDS, in moving a vote of thanks to the president for his address, said that it contained so much information that it would be vain for him to attempt to deal with it in detail. It might be divided into two parts—first, the Dublin address proper; second, the address for the world in general. With respect to Part 1, he desired to thank the president sincerely for his graceful allusions to the relations between Ireland and the greater island on the other side of St. George's Channel. He had skimmed over very thin ice, and had touched in a most interesting and kindly way upon the unpleasant episodes of the past and the brighter possibilities of the present and future. (Great applause.) With regard to the process for the recover of waste CO_2 which had been mentioned, it was only fair to state that the credit for that was due to a Dublin chemist then present—viz, Professor Tichborne. (Applause) He would not deal with the general part of the address further than to say that the president had dealt with an unsavoury subject in an interesting and valuable manner, and had effectually knocked on the head all the schemes for dealing with sewage by the water-carriage system. Whether it was possible to secure its treatment by any other system at present known was, however, very doubtful. One important point in this connection would, he hoped, receive the careful attention of chemical engineers in future—viz, the introduction of sewage-gas into houses. The whole subject was of the greatest importance to Dublin, the town being very unfavourably situated for disposing of its sewage and surface drainage.

Mr. JOHN SPILLER seconded the motion, and in doing so bore graceful testimony to the value of the president's services to the society during his year of office, and indeed during the whole period of its existence. The motion was then put by the secretary, and was carried by acclamation.

The PRESIDENT having briefly thanked the meeting.

Mr. S. H. JOHNSON proposed the reappointment of Messrs. Theobald Bros. & Miall as auditors for the ensuing year. The motion was seconded by Mr. A. E. Fletcher, and was carried.

Mr. THOS. TYRER, as chairman of the London section, invited the society to hold its next annual meeting in London.

Mr. W. CROWDER seconded the motion, which was carried unanimously.

The result of the election of office-bearers was then announced, and it was found that the nominations of the council with respect to the offices of president and vice-presidents had been confirmed; while of the six candidates for the office of ordinary members of council the following were elected:—Mr. Wm. Thorp, Mr. Boverton Redwood Mr. A. Boake, and Dr. Charles Dreyfus. The officials for the ensuing year are therefore as follows:—

President.

Prof. J. Emerson Reynolds, M.D., D.Sc., F.R.S, Professor of Chemistry, Dublin.

Vice-Presidents.

E Rider Cook, soap manufacturer, London.
Dr. John Evans, F.R.S., paper manufacturer, London.
A Norman Tate, analytical chemist, Liverpool.
Sir John Turney, tanner, Nottingham.

Ordinary Members of Council.

Arthur Boake, manufacturing chemist, London.
Dr. Charles Dreyfus, dye manufacturer, Manchester.
Boverton Redwood, analytical chemist, London.
William Thorp, B.Sc., colour manufacturer, London.

Honorary Treasurer.

E. Rider Cook, soap manufacturer, London.

Hon. Foreign Secretary.

Mr. F. Hurter, chemical manufacturer, Liverpool.

Professor EMERSON REYNOLDS having thanked the meeting for the honour conferred on him,

Mr. B. E. R. NEWLANDS announced that, under the charter of the Imperial Institute, the Society of Chemical Industry had the right of nominating a member of the governing body. He proposed that the President, Mr. Rider Cook, should be appointed to that office.

Mr. MUMFORD seconded the proposal. He felt sure that the members generally would recognise that Mr. Rider Cook's past service marked him out as a worthy representative of the society on the board of the Imperial Institute.

The motion was thereupon carried unanimously.

The PRESIDENT thanked the members for the confidence placed in him, and moved that the hearty thanks of the members be accorded to the authorities of the university for their kindness in inviting the society to use their rooms on this occasion. It was, he said, a most interesting event for the society to hold its meeting in that historic place, the influence of which was not confined to Dublin or Ireland, but was world-wide in its beneficence.

Mr. NORMAN TATE had the greatest pleasure in seconding the motion. The meeting was, he thought, a proof of the existence of strong brotherly feeling between the two countries. English chemists had come over to grasp in fellowship the hands of their Irish fellow-workers, and they would unite to form one strong brotherhood to labour in that great field of chemical industry which could do so much for the benefit of both nations.

The vote of thanks having been unanimously and enthusiastically accorded, the members then passed into the quadrangle of the university, where they were called upon to submit in a body to the attack of a battery of photographic lenses, after which they adjourned to the Antient Concert Hall, Great Brunswick Street, where, by the kindness of the Reception Committee, an excellent, and, indeed, sumptuous, luncheon had been provided.

Sir Henry Cochrane, deputy-lieutenant, presided, supported by the president and Mrs. Rider Cook, Sir Charles Cameron, and Sir Valentine Ball, director of the Science and Art Museum. The members thoroughly enjoyed the repast, which was accompanied by a spirited orchestral performance of old Irish airs. Not less did they enjoy the racily Hibernian speech in which Mr. W. G. Strype, one of the indefatigable honorary secretaries of the Reception Committee, announced the arrangements for the rest of the day.

The PRESIDENT availed himself of the very few moments at disposal to propose the toast of the Reception Committee, coupling with it the name of Sir Henry Cochrane. The toast was drunk with enthusiasm, and, led by Mr. Tyrer, hearty cheers were added in compliment to Mr. Boyd, Mr. Strype, and Mr. Wilson. Sir Henry Cochrane briefly responded, and the members then divided into two parties.

Those who had not had enough, and more than enough, of St. George's Channel on Tuesday availed themselves of the

opportunity afforded for a trip round Dublin Bay, under the care of Mr. Wilson, Hon. Treasurer, and the Rev. Dr. Haughton. The larger proportion, however, decided to take the train, and, under the guidance of Mr. S. P. Boyd, enjoy the beauties of Killiney Hill, Victoria Park, and the delightful grounds of Mr. S. Boyd.

In the evening the members, with one consent, repaired to the *conversazione* given by the Reception Committee, and held, by permission of the Lords of the Committee of Council on Education, at the Science and Art Museum, Kildare Street. Here they were received by the Lord Mayor and Lady Mayoress, Miss Meade, and Sir Valentine Ball, F.R.S., director of the museum. The *conversazioni* of the Society of Chemical Industry have always been thoroughly enjoyable functions; but it has never, we think, been the good fortune of the members and their friends to meet in a building quite so absolutely suitable for the purpose as that in which they congregated on Wednesday evening. By nine o'clock about 500 ladies and gentlemen had assembled, and the scene, whether surveyed from the floor of the grand central court, its galleries, or the gallery of the beautifully-proportioned rotunda, was brilliant and animating in the extreme. The building was sufficiently spacious to prevent an inconvenience from crowding, and the guests were able to enjoy in comfort the conversation of their friends, or thoroughly inspect the curiosities and art treasures of the institution. Among the latter the especial attention of the visitors was deservedly directed to the large and unique collection of casts by the late J. H. Foley, R.A., bequeathed by him. During the evening a selection of instrumental and vocal music was admirably performed by the band—military and string—of the 1st Royal Sussex Regiment, by kind permission of Lieutenant-Colonel Courtenay, and refreshments endless in variety and apparently inexhaustible in extent were at the disposal of all who needed them. Altogether the proceedings of the first day were completely successful, and the members gave unqualified approval to the president's morning declaration that the Dublin meeting of 1891 must be regarded as a red-letter event in the annals of the society.

On Thursday morning, favoured by fine weather, a large number of the members assembled at College Green, whence they started in about equal proportions on excursions to the Great Southern and Western Railway Company's Works at Inchicore, and to the famous distillery of Messrs. Power & Sons, and the brewery of Messrs. Guinness, Son & Co. After a complete inspection of these works, a small number still craving for fuller information on the production of the national beverage went on to the renowned distillery of Messrs. John Jameson & Son, which, unlike that of Messrs. Power, was found to be working, though at greatly reduced speed. In the afternoon a large number of the party, including, of course, the fair contingent, availed themselves of the invitation to a garden party in the Zoological Society's gardens, Phœnix Park. The annual dinner of the society took place in the evening at the Town Hall, Kingstown, and was attended by about two hundred members and friends. Friday was to be wholly devoted to excursions—one being to the city water-works at Roundwood, the other to Enniskerry and the demesne of Viscount Powerscourt, K.P.

THE makers of a popular cough-lozenge in U.S.A. some time ago offered a ticket for a free trip to Europe and back, with all expenses paid, to the druggist who sold most of the article in a given time. They now announce that Mr. A. M. Wilson, corner of Ninth and Filbert Streets, Philadelphia, has got the ticket.

THAT BEESWAX MINE.—Mr. G. L. Mason, of Palouse City, Wash., writing to the *Pacific Drug Review*, vouches for the correctness of the statement in regard to beeswax being found on Nehalem beach, for, a few years ago, in company with others, he unearthed a quantity—probably five or six pounds—of beeswax from the sand on the beach. How it came there he does not know, but the tradition of Indians in the locality is that it came from a vessel which was wrecked there many years ago.

Notes of Novelties.

SAVON DE LUXE.

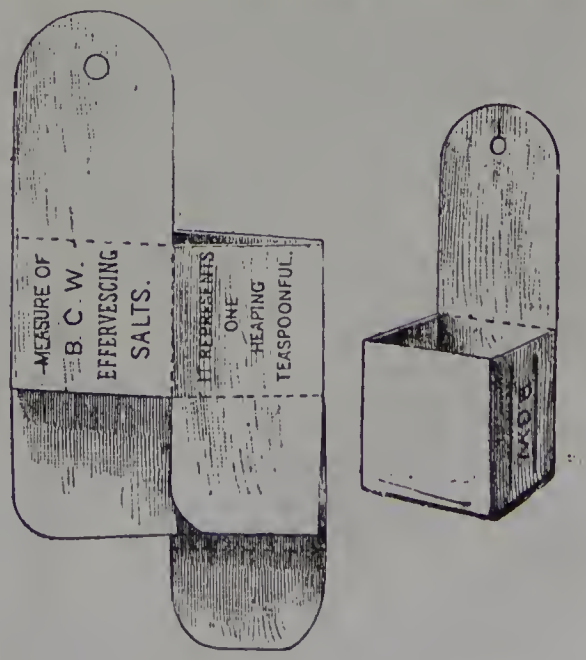
MESSRS. E. COOK & CO., of the East London Soap Works, have produced a toilet soap of the highest quality and perfumed with extra lavishness. The cakes are wrapped in artistically-designed floral covers, and are supplied variously perfumed—rose, lavender, musk, violet, patchouli, and queen's bouquet being the varieties. The wholesale price will enable the tablets to be sold at 1*s*. each, or three in a box for half a crown. The makers have been sending out samples of this soap by thousands.

CARBOLIC-ACID STOPPER.

MESSRS. F. C. CALVERT & CO., of Bradford, Manchester, have done the right thing in deciding to adopt a safety stopper with all the bottles of their carbolic acid which they send out. No difference will be made in the price in consequence. The particular stopper they have selected is one which we illustrate in the margin. It is a cork with a metallic top and fringed with a spiked collar. It is very difficult and decidedly painful to remove this stopper with the naked fingers, but it can be done readily with the aid of a cloth. The manufacturers of the stopper are the Patent Stopper Box and Stamp Company (Limited), Icknield Street, Birmingham, who are the licensees in the United Kingdom for the patentees, Messrs R. Le Neve Foster and J. S. Crowley.

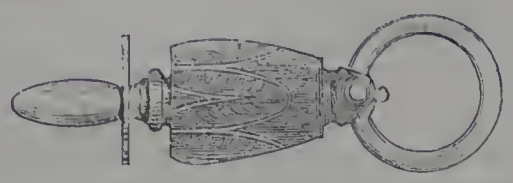
MEASURING CARTON.

A BROOKLYN firm puts up granular effervescent salts with a novel paper measure, the style of which is shown in the figures below. It is a folding paper carton, which, when received with the bottle, lies flat, as shown in fig. 1. When folded for use, as in fig. 2, its measuring capacity is one heaped teaspoonful. This, according to the *Pharmaceutical Record*, provides a neat and convenient measure, and insures a definite amount at each dose. Box-makers in this country may take a hint.



THE "RUSTIC" BABY-COMFORTER.

THIS is the name which Messrs. E. Mariott & Co., of Hastings, have given to the latest addition to their series of "Lily" comforters. The engraving shows the style of the article, and it will be noticed that the central rattle is



ornamented in rather a quaint way, this part being made from a vegetable-ivory nut, the brown surface of which is allowed to remain on, so that the carving appears in white beneath a natural-coloured surface. There are various artistic designs, and the quality of the comforter in other respects is all that the trade would expect of the makers.

TRADE-MARKS APPLIED FOR.

THE *Trade Marks Journal* publishes the following notice:—"Any person who has good grounds of objection to the registration of any of the following marks may, within one month of the date of this journal, give notice in duplicate, at the Patent Office, in the form 'J,' in the second schedule to the Trade Marks Rules, 1890, of opposition to such registration." All communications to be addressed to H. Reader Lack, Esq., Comptroller General, at the Patent Office, 25 Southampton Buildings Chancery Lane, London, W.C.

(*From the "Trade Marks Journal," June* 17, 1891.)

"PACITA"; for medicines for dogs and other animals. By Eliza L. Scott, 9 Queen's Gate Terrace, Middlesex. 155,781.

"LYPSYL"; for chemical substances used for veterinary and sanitary, &c., purposes. By Blondeau et Cie., trading as Vinolia Company, Ryland Road, N.W. 156,361.

"CLOTIX"; for ointment. By Richard Wilkinson, 14 Pelham Street, Nottingham. 153,445.

"TOWNSON'S WONDER RUBBING-BOTTLE," and illustration and wording on label; for an embrocation. By R. Townson, 50 Anvil Street, Blackburn. 155,471.

"ZEUZO"; for medicine for human use. By Morio & Co., 22 Elliot Road, Thornton Heath, Surrey. 155,573.

"MIKOZONE"; for chemical substances used in medicine and pharmacy. By J. Richardson & Co., Friar Lane, Leicester.

"WAHTOTA" and "SARSOSA"; for chemical substances used in medicine and pharmacy. By the London Drug and Dental Company (Limited), 10 New Broad Street, E.C. 156 232, 156,233.

"MELLOR & SONS, MANCHESTER," initials and signature; for mineral and aërated waters. By Harriet B. Mellor, 31 Hyde Road, West Gorton, Manchester. 155,796.

"GREATEST CLEANSER ON EARTH"; "QUALITY SELLS IT," and picture of locomotive-engine; for perfumed soap, cleansing proparations, and perfumery. By Hodgson & Simpson, Calder Soap Works, Wakefield. 155,953, 155,955.

Circular design showing sketch of two pears and signature; for perfumery and toilet articles. By A. & F. Pears, 91 Great Russell Street, Bloomsbury, W.C. 156,256.

(*From the "Trade Marks Journal," June* 24, 1891.)

"SILVER KING," and letters on circular design; for chemical substances and anti-corrosives. By J. Houghton & Sons, 27 Bartholomew Close, London. 153,680.

"ANATAKOS"; for preservatives for alimentary substances. By A. Horn, 9 Lemma Road, Leytonstone. 155,764.

"VENADINE," and "VENADOLINE," and Latin motto on circular design; for medicated preparations for the hair. By C. Loft, Oakdale, Church End, Finchley. 154,837, 154,839.

"HESSAWINAH"; for corn and skin disease remedy. By E. M. Hingeston, 15 Townshend Villas, Richmond, 154,879.

"JOHN SILVER'S PILLS" and "OILS"; for pills and medicated oil. By John Silver, 64 Lansdowne Road, Croydon 155,113.

"ACARIUS" and "ALKANO"; for medicines. By E. S. Hermes, trading as the Homœopathic Medicine Co., 19 Devonshire Chambers, Bishopsgate Street Without, E.C. 155,695.

"D. C. EVANS"; for medicines. By D. C. Evans, Tonbridge Road, Maidstone. 156,141.

"LA TROBE'S CONSTITUTION POWDER" and signature; for a medicated powder. By H. La Trobe, 155 St. Michael's Hill, Bristol. 156,159.

"GOSSAGE'S NATIONAL CARBOLIC," and other wording on label; for medicated soap. By William Gossage & Sons, Widnes. 156,339.

"ANASPALINE"; for chemical substances used in medicine and pharmacy. By J. Richardson & Co., Friar Lane, Leicester. 156,503.

"CROSS TONIC SALT" on label; for a tonic salt. By C. J. Weir, Weir's Court, Newcastle-on-Tyne. 155,922.

Picture of man's head, and wording on label; for mineral and aërated waters. By W. A. Wilkinson, King Street, North Shields. 154,620.

"NERVON," and representation of a weight supported on cross-bar; for mineral and aërated waters. By Dalgleish & Williams, Bridlington Street, Nottingham. 156,112.

"THE EMPIRE SOAP TABLET"; for toilet soap. By the Victoria Soap Co. (Limited), Plymouth. 59,722.

(*From the "Trade Marks Journal," July* 1, 1891.)

"TITAN SOAP," and picture of giant holding cauldron; for disinfecting-soap for dogs, cattle, &c.; and for medicated soap for human use, and perfumed soap, &c. By The Liverpool Patent Soap Company (Limited), Fenwick Chambers, Liverpool. 155,789, 155,790, 155,791.

Picture of seraph holding flambeau, and wording; for an antiseptic powder. By Fabrique Internationale d'Objets de Pausement, Montpellier, France. 155,867.

Illustrated label, with wording; for ointment for human use. By J. E. Hill, Carmarthen Road, Swansea. 156,117.

Picture of child holding smoke-ball; for chemical substances for use in medicine and pharmacy. By F. A. Roe, 27 Princes Street, Hanover Square, Middlesex. 156,607.

"W. UNSWORTH & CO., RETFORD," and monogram; for aërated waters. By W. Unsworth & Co., East Retford. 155,945.

Illustration of corkscrew and cork, and harrow; for mineral and aërated waters. By G. A. Harston, trading as Harston & Co., Station Parade, Harrogate. 156,417.

"ZOELIA," and other wording on label; for a preparation for the hair. By W. R. Mealing, trading as Latour & Cie., 158 Regent Street, London. 156,493.

ARISTOL is causing some heart-burning in the United States at present. It is a substitute for iodoform, has been patented in the States, and one firm has secured the sole agency for it. Naturally there are some who have no wish to boom it in consequence, but it is scarcely worth the trouble. Iodoform flourishes in spite of its vile odour and host of rivals.

FOR DYSPEPTIC AND NAUGHTY CHILDREN—naughty because something is wrong with their digestion—Dr. Lauder Brunton says he does not know any medicine that is better than some Gregory's powder, because it has both a moral effect and a physical action. Its nasty taste, when administered as a punishment, is wholesome morally, while its action upon the liver and digestion is most useful physically.

Alleged Imitation of a Patent Medicine.

A middle-aged man named Thomas Clifford, described as a travelling patent-medicine vendor, was charged at the Cardiff Police Court on Monday, before Mr. T. W. Lewis (Stipendiary) and Alderman D. Jones, with infringing the Merchandise Act, 1887, by illegally selling certain medicines to which a trade-mark had been falsely applied. It was further alleged against him that he did unlawfully falsely apply to certain goods a trade-mark, and that he did by false pretences obtain of James Willetts 2*s*. with intent to defraud.

Mr. S. T. Evans prosecuted, and Mr. H. W. Parker defended.

Mr. Evans, in opening the case, said that he proposed to deal first with the charge of false pretences, and if that were satisfactorily established, there would be no necessity for proceeding with the other two. The circumstances were that James Willetts, a New Tredegar collier, visited Cardiff on June 7, and saw near the Custom-house bridge the defendant selling from an open vehicle medicines which he described as Sequah's Oils and Prairie Flower. Willetts had used a large quantity of both remedies, and, hearing that defendant was selling them at 1*s*. instead of the usual 2*s*. a bottle, he asked him for half a dozen of each. Defendant gave him one bottle of each, and promised to give him the rest on the following Monday. Willetts said that he would not have purchased the medicines if they had not been represented as those of Sequah. It would be proved that defendant was dressed in the characteristic hat of the Sequah agents, that Sequah's medicines had never been sold at 1*s*. a bottle, and that the medicines sold to Willetts, although put up in Sequah wrappers, were spurious.

The Stipendiary observed that it must be shown that the defendant did more than falsely puff his goods, as was the too common practice. If defendant obtained money by false representation, it did not follow that there were any false pretences.

James Willetts was then called, and corroborated counsel's opening statement. In cross-examination he emphatically denied that he had been sent to purchase defendant's medicine by a Mr. Ferris, one of the managers of the Sequah Company.

Albert Ferris swore that the oils purchased by Willetts, although they were put up in the wrappers of the Sequah Company, were not of their manufacture. He knew Willetts, and had sent him to purchase the medicines.

The Stipendiary: In the face of what was said on this point by the last witness, Mr. Evans, will you proceed?

Mr. Evans: Well, sir, I fear I must submit to you. I had not been told this before.

The Stipendiary: I do not think there is any probability of a jury convicting in this case, although I must say I think it is a case which should go to a jury. The witness Willetts is not only a wicked man, but a very foolish one, for he has succeeded in depriving the company of getting a conviction against defendant.

Mr. Evans explained that he could not go on with the other two cases, because there had been a slight difficulty in obtaining the registration certificate of the firm, formal notice being required for its production. He therefore asked for an adjournment.

Mr. Parker objected, but the objection was overruled, and the cases were adjourned until Monday next week.

Commission on the Sale of "Warner's Safe Cure."

In respect to the sale to a company of Warner's Safe Cure remedies for 550,000*l*., Mr. Justice Denman and a special jury were recently asked by Mr. Jeffrey to award him commission under an agreement dated May, 1889. By this Mr. Crawford and Mr. L. A. Hall, who came to England from America with instructions from Mr. Warner to get a purchaser, jointly undertook that in consideration of plaintiff introducing to them parties who would within ten days contract to their satisfaction to form a limited liability company to purchase the Cure remedies, they would give him fully-paid-up shares in the company so to be formed of the par value of 30,000*l*., an attached letter explaining that this should be paid on the basis of 100,000*l*. over and above the amount to be paid to Mr. Warner, and if less the commission should be proportionately reduced. Plaintiff's case was that he opened negotiations with and visited a Mr. Swithinbank, in Paris, to whom he agreed to pay one-third of his commission, and did actually pay him 2,000*l*. Mr. Swithinbank, in his turn, opened communications with Mr. Foster, of the London and Colonial Finance Corporation, who were the means of floating the company; but it was alleged the negotiations with Mr. Foster fell through, and the actual formation of the undertaking was ultimately effected through Mr. Morrison, a director of the corporation, to whom plaintiff, however, alleged he paid 5,000*l*. On the ground of misdirection by the judge to the jury leading them, it was alleged, to find a verdict for the defendants, plaintiff, on July 3, applied to the Lord Chief Justice and Lords Justices Bowen and Kay for a new trial, Mr. Kennedy, Q.C. (with him Mr. Fillan), appearing on his behalf; and Mr. F. Lockwood, Q.C. (with him Mr. Greiry), for the defendants.

At the close of the arguments the Lord Chief Justice said if the case stood alone on the summing up he thought the judgment could not be sustained; but it was sufficient for that court to decline to interfere in presence of the finding of the jury that the plaintiff did not substantially introduce the defendants to the ultimate purchaser, upon which point plaintiff did not deny there was a conflict of evidence. This rendering it unnecessary to consider the other questions raised, the appeal must be dismissed. The Lords Justices concurring, the appeal was dismissed accordingly.

What is Salad Oil?

At the Tynemouth Sessions on Monday, Wm. E. Ward, chemist, Wallsend, was summoned, at the instance of Supt. Taylor, for selling one pint of salad oil, which, on being analysed, was found to be cottonseed oil. Mr. Parsons defended. Supt. Taylor said on June 10 he purchased from the defendant a pint of salad oil, and, dividing it into three portions, left one with the defendant, sent another to the public analyst, and retained the third portion in his own possession. The public analyst on the results of his examination certified the oil to be cottonseed oil. Cross-examined:—The stone bottle produced was like the one which the defendant supplied the oil from. It was labelled "Columba salad oil." He did not notice the label at the time. The defendant did not draw his attention to it. He considered that salad oil must necessarily be olive oil. The defendant did not call his attention to the label and ask if that was the oil he wanted, and he did not reply "yes." He asked for salad oil. He paid one shilling for it.

Mr. Parsons, for the defence, said the Columba salad oil had been imported into the country for the last twenty years, and was regarded as a much superior oil to many olive oils that were sold. Supt. Taylor's attention was called to the label before he purchased the oil, which was supplied to him accordingly. If he had asked for pure olive oil his client could have supplied him with it, as he had both kinds in stock.

The defendant was then sworn, and said he asked Supt. Taylor if he wanted olive oil, and he said he wanted the kind of oil contained in the stone jar produced. He sold it as Columba salad oil, thousands of tons of which were imported into this country and used for salads.

Further evidence having been called for the defence the bench dismissed the case, being of opinion that if Supt Taylor had asked for olive oil, he would have been supplied with it.

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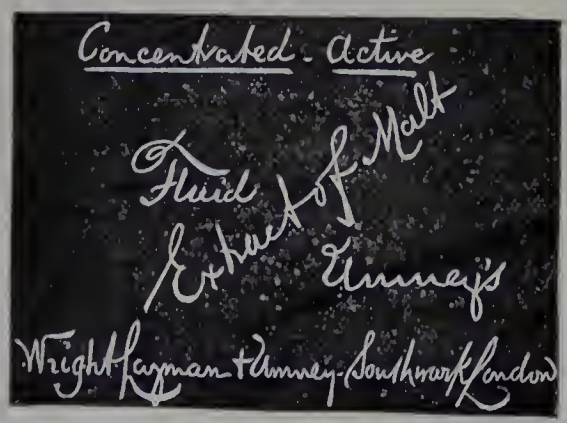

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Premiums Moderate. Losses settled with promptitude and liberality.

Applications for Agencies specially invited from Chemists and Druggists in both Town and Country Districts.

PATENTS AND TRADE MARKS.
W. P. THOMPSON & CO., F.C.S., M.'s I.M.E., &c., 6 Lord Street, LIVERPOOL; 6 Bank Street, MANCHESTER; 63 Long Row, NOTTINGHAM; and 323 High Holborn, LONDON, W.C., Chemical and General Patent and Trade Mark Agents.
MANUALS OF INSTRUCTIONS GRATIS.

NOTICE.
ROWLAND'S MACASSAR OIL, KALYDOR AND ODONTO.

Any Chemist who publishes a Monthly or Annual List of Prices circulating among the general public will oblige Messrs. A. ROWLAND & SONS, of 20 Hatton Garden, London, by sending a copy of last issue, and stating price for an advertisement of page or half-page on cover. Counter Bills and Dummies always sent on application.

CHASSAING & CO.'S PEPSIN, PEPTONE, PANCREATINE
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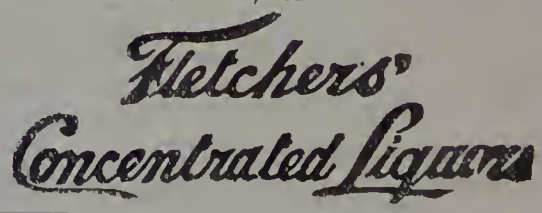

COUNTER-PRACTICE.

WE wish to supplement our remarks of last week which were suggested by the case of the Apothecaries' Society *v.* Bright, then reported, by urgently requesting any chemist who may be served with notice or intimation of a prosecu-

A Copy of this Supplement is inserted in every number issued of "The Chemist & Druggist."

The Chemist and Druggist SUPPLEMENT

Businesses Wanted.
Businesses for Disposal.
Premises to Let.
Auction Sales.

SATURDAY, JULY 11, 1891.

Partnerships.
Situations Vacant.
Situations Wanted.
Miscellaneous.

ADVERTISEMENTS for this Supplement can be received on FRIDAY MORNING, first post, though it is requested that these may be sent in as early in the week as possible.

EXCHANGE COLUMN ADVERTISEMENTS will appear on page 10 (bottom folio), and must be received not later than THURSDAY AT NOON, to appear in the next issue.

All Advertisements for this Supplement and Exchange Column must be prepaid. Remittances payable to EDWARD HALSE, and crossed MARTIN'S BANK (LIMITED).

OFFICES: 42 CANNON ST., LONDON, E.C.

This Supplement will be given free to any Chemist and Druggist or Assistant who will call for it at 42 Cannon Street on Friday afternoon, or will be posted on Fridays to any one who sends an addressed postal wrapper.

CHEMISTS' TRANSFERS.

MESSRS. ORRIDGE & CO., 32 LUDGATE HILL, E.C.

CHEMISTS' TRANSFER AGENTS,

May be consulted at their Offices on matters of SALE, PURCHASE, and VALUATION.

The business conducted by Messrs. ORRIDGE & Co. has been known as a Transfer Agency since the year 1846, and is well known to all the leading firms in the Trade. VENDORS have the advantage of obtaining an opinion on value derived from extensive experience, and are in most cases enabled to avoid an infinity of trouble by making a selection from a list of applicants for purchase, with the view of submitting confidential particulars to those alone who are most likely to possess business qualifications and adequate means for investment. PURCHASERS who desire early information regarding eligible opportunities for entering business will greatly facilitate their object by describing clearly the class of connection they wish to obtain.

1.—**LONDON, N.W.**—Dispensing and Retail Business of good class; very largely ready money; returns between £900 and £1,000; *profits very good*; well-fitted shop and excellent stock; full examination permitted; price £750.

2.—**LONDON, E.C.**—Retail and Dispensing; handsomely-fitted shop and good stock; returns over £1,000 yearly; all good profitable business; several good proprietaries included; lock-up shop; price £800.

3.—**LONDON, N.**—Dispensing and Retail; established 20 years; good-class select business; very handsome shop; returns between £700 and £750 last year; increases yearly; *very good profits*; good house, on lease; price £700; full investigation.

4.—**LONDON, W. (Suburb).**—Good-class Dispensing and Retail; returns last year £1,150; all profitable business; well fitted and attractive shop and comfortable house; price about £1,250.

5.—**LONDON, E.**—Retail, Dispensing, and Prescribing Business; all good-class profitable business; returns at present rate nearly £1,000; increasing; very nicely-fitted shop and good house; price £850.

6.—**LONDON, N.**—Ready-money Retail Business, established many years; returns nearly £500 yearly; large shop and comfortable six-roomed house; price about one year's returns; full particulars on application.

7.—**HOME COUNTY.**—Easy distance from London.—Good-class Family Retail and Dispensing; returns last year nearly £1,000; good profitable business; above the average; well-stocked single-fronted shop; good-sized house and large garden, with greenhouse; stable, coach-house, &c.; price about one year's returns; everything open to investigation.

8.—**LONDON SUBURB. S.**—Old-established very good-class Business; returns average over £1,000 yearly; *profits considerably above the average*; well-fitted shop and ample stock; good house and garden; price £1,150.

9.—**CATHEDRAL TOWN (West).**—Very handsome shop, with good-class Dispensing and Retail, and very good Agricultural connection; returns (which are steadily increasing) last year between £800 and £850; stock very good; everything open to the fullest investigation.

10.—**SEASIDE (South Coast).**—Fashionable town; Retail and Dispensing Business; returns £700; very nicely-fitted shop; all in good working order; six-roomed house and shop; price about £500; possession at any time.

11.—**SEASIDE (South).**—Handsome shop; situate in main street; fashionable health resort; returns between £1,300 and £1,400; about £1,100 required; particulars on application.

12.—**SOMERSET.**—Pretty rural district; Retail and Dispensing Business, with good Agricultural connection; no heavy trade; returns last year £650; *very good profit*; large house, with attractive garden, stable, &c.; full inspection of books and premises at any time; about £550 required.

13.—**PLYMOUTH.**—Retail Business and Dispensing; situate in a main street; returns nearly £500 last year; good house and garden; price £300.

14.—**EASY DISTANCE OF LONDON.**—Mixed Business, Retail, Dispensing, and Oils, &c., situate in the centre of a large agricultural district; returns between £1,600 and £1,700; *very good profits*; large house, warehouse, and garden; valuation, about £1,000 to £1,200; part may be paid by instalments if wished.

Particulars of any of the above will be furnished on application.

N.B.—NO CHARGE TO PURCHASERS.

Other Businesses, Town and Country. Particulars free on application. Personal applicants receive Messrs. O. & Co.'s direct attention and advice, where required, free.

TERMS FOR VALUATION ON APPLICATION. APPOINTMENTS BY POST OR WIRE HAVE IMMEDIATE ATTENTION.

Messrs. ORRIDGE & Co. invite communications from COLONIAL and FOREIGN firms where business of a confidential nature requires the especial attention of a London agent.

SPECIAL NOTICE.—TO PRINCIPALS AND ASSISTANTS.

MESSRS. ORRIDGE & Co. Register Vacancies for Situations FREE OF CHARGE.

ORRIDGE & CO., 32 Ludgate Hill, LONDON, E.C.

F. J. BRETT,

VALUER, LEICESTER,

60 St. Stephen's Road.

References to principal London and Provincial Wholesale Houses, also to numerous clients throughout the United Kingdom.

BUSINESSES THOROUGHLY INVESTIGATED FOR BUYERS. 20 YEARS' EXPERIENCE.

STOCKTAKING UNNECESSARY.—Stocktaking is always dreaded by Chemists, and with a competent Valuer is not necessary.

F. J. BRETT is prepared to estimate or to value entire stocks as they stand with little or no inconvenience to ordinary business, and has repeatedly done so with entire satisfaction to those adopting this mode.

STOCKS AND FIXTURES BOUGHT FOR CASH.

WILTS.—Returns £930 drugs, £350 Gilbey's; good house, garden, &c.; price £800.

MIDLANDS.—Family Retail in pretty market town; returns £800; excellent premises; garden; price £700.

KENT.—Returns over £800, with a little Wholesale; price £650, or Retail alone £480.

NOTTINGHAM.—Retail in rapidly increasing suburb; suit young pushing man; price £100 or valuation.

STAFFS.—Returns £650; large town; price £400 or valuation.

MESSRS. BERDOE & CO.

CHEMISTS' TRANSFER AGENTS & VALUERS,

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Established 1870.

VALUATIONS and TRANSFERS conducted in any part of the United Kingdom. Twenty years' practical experience. Terms, which are strictly moderate, may be had on application.

NO CHARGE TO PURCHASERS.

MIDLANDS.—First-class suburb of large town; Retail and Dispensing Business; in present hands 30 years: selling to retire; returns about £1,500: net profit £600; good house; price £1,300.

EAST COAST.—Large town; Retail, Dispensing, and Prescribing Business; returns £1,400; net profit £375, after paying all expenses; low rent; same hands 11 years; good introduction; price £700.

WEST OF ENGLAND.—Retail, Dispensing, and Agricultural Business; returns £700; full prices; no heavy trade; good house, with large garden; shop well fitted and heavily stocked; price £550.

KENT COAST.—Retail, Dispensing, and Prescribing Business; returns £1,000; net profit £400; good house, excellent position; capable of increase; price £800, or offer; strictest investigation.

GLOUCESTERSHIRE.—Small market town; Retail, Dispensing, and Prescribing Business; returns £600; good profits; rent £28; shop is well fitted and stocked; convenient house; price £375.

OXFORDSHIRE. Retail, Dispensing, and Prescribing Business; returning £2,000; held by vendor many years; good house; low rent; price £1,000: valuation terms may be arranged.

HANTS.—Unopposed select Retail and Dispensing Business; returns £650 yearly, steadily increasing; good house and garden; owner taken partnership, desires early sale; price £450.

CROYDON (near).—Retail and Prescribing trade; returns £8 week; very profitable; rent £30; let off £6 by stable; good house and garden: no opposition near; price £130; would make good branch.

LONDON, N.W.—Retail and Dispensing Business, returning £950 under management; good profits; price £750; part can remain if required, and trial given to prove trade.

LONDON, S.W.—Marketing thoroughfare; neglected Retail, now taking £8 per week, and capable of increase; must be sold at once; less than valuation will be accepted, about £175; splendid opportunity for young man commencing business.

Particulars of any of the above sent free on application.

Other Businesses, Town and Country, from £100 to £5,000.

Messrs. Berdoe & Co., 30 Jewry St., Aldgate, London, E.C.

BUSINESSES FOR DISPOSAL.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

CHEMIST and Druggist; N.E.; rent £70: let off £10; lease 18 years; beautifully fitted; price £500 or near offer. After 3 o'clock, Langford, 3 Essex Villas, Birkbeck Road, Leytonstone.

SPLENDID opening for a Chemist; premises occupying the best position in town of 60,000, with no opposition; good house; shop fitted by Sage. For full particulars, apply to Hedley, 39 Portland Road, Devonport.

FOR immediate disposal, through illness of the proprietor, a Retail and Prescribing Business, taking £400 per annum; capable of great increase; low price to an immediate purchaser. Apply, 9 Wellington Street, Strand.

LIVERPOOL (£250).—For disposal, compact, ready-money Retail Business; good thoroughfare; rent moderate; old-established; satisfactory reasons for disposal. Apply, X. Y. Z., care of Evans, Sons & Co., 56 Hanover Street, Liverpool.

Messrs. CROCKER & CO.

Trade Valuers, Transfer Agents, and Accountants,

15 WALBROOK, E.C.

GLOUCESTERSHIRE.—Retail, Dispensing, and Prescribing; returns £600; low rent; serious illness cause of sale; price £350; capital house and garden; handsome pharmacy and good stock.

SOMERSET.—Old-established Retail, Dispensing, and Prescribing trade; returns £810; very profitable; price £600; handsome pharmacy.

WEST MIDLANDS.—An old-established Retail and Dispensing, with small proportion of heavy trade; returns £2,000; price £1,200.

LANCASHIRE.—Retail and Dispensing; returns £1,100; price, valuation of stock and fixtures only; an exceptionally sound investment.

HOME COUNTY.—Light Retail and Dispensing; returns £400; low rent; price £320; large and convenient house, with nice garden.

SUSSEX.—Old-established Retail and Dispensing, with good sale of own specialities; returns £600; price £450; good house and garden.

HANTS.—Light Retail and Dispensing; returns £400, and increasing; large, convenient premises; long lease; low rent; price £200.

SURREY.—Unopposed good-class Retail and Dispensing, with valuable agency; returns £750; very profitable; price, small premium for goodwill and valuation.

PARTNERSHIP or PURCHASE.—We can offer a half-share of an old-established Country Business, returns over £4,000; the present proprietor is desirous of retiring, and will take a partner with a view to his succession in about 12 months; price, for half-share, £1,000, or valuation terms can be arranged.

WEST OF ENGLAND.—Good-class Mixed trade; returns £2,600; low rent; capital premises; price £200 for goodwill and fixtures; the stock at valuation.

NORTH OF ENGLAND.—Good-class ready-money Retail and Prescribing trade; returns £1,000; price £550; rent £30; good profits.

HANTS. Retail, Prescribing, and Dispensing; in best part of busy town; returns £800; low rent; price £550; worth attention.

LONDON, S.E.—Retail and Prescribing trade; unopposed position; returns £500; price £400; rent £40; good house, &c.

LONDON, S.—Good-class Retail and Dispensing trade; returns £500; low rent; price £350; capital position in marketing thoroughfare.

LONDON, S.W. Light Retail, Prescribing and Dispensing; very profitable trade; returns £750, increasing rapidly; price £650, or a partnership with a view to ultimate succession would be entertained.

LONDON, N.—Good-class Ready-money Retail and Dispensing trade; returns £850; price £600, or offer.

NO CHARGE TO PURCHASERS.

VALUATIONS A SPECIALITY. TERMS ON APPLICATION.

BUSINESSES FOR DISPOSAL—Continued.

FOR immediate disposal, a genuine old-established first-class Retail, Dental, and Prescribing Chemist's, situate in main thoroughfare E.C. district; fixtures, stock, and goodwill, price £500. Apply, James Starkey, Surveyor, 74 Albion Road, Stoke Newington, N.

THROUGH death, a Chemist's Business in a very populous and healthy neighbourhood, in a rising town of Derbyshire; an excellent opportunity for a young man commencing; every investigation; about £180 valuation, portion might be left on. "Chemicus," 350 Nottingham Road, Ilkeston.

EASTERN COUNTIES.—Old-established Prescribing, Retail, and Dispensing Business; same hands 17 years; owner retiring; returns last year £240; price £170; shop well stocked; rent £14; good lease, large garden, with lawn and fruit-trees, &c. W. S., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

BOURNEMOUTH (near).—Good-class Retail, Dispensing, and Prescribing Business, returning £500 to £600 yearly; capable of considerable increase by an energetic man; quite unopposed, shop is well fitted and stocked; price only £300 or offer. "Aqua," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

IN best thoroughfare of busy city on South Coast, from exceptional cause, a thoroughly genuine high-class and increasing Business; double-fronted, roomy house at £34 net rental; handsome fittings, good stock, and many years' connection; is offered for £400. Photo and full particulars of Mr. Hine Gilbert, 113 Goldhawk Road, W.

LONDON, N.—First-class Business to be sold; a great sacrifice; returns about £900 under management; handsome large shop and well stocked; splendid position, and capable of great extension; price only £550. Also a Business returning £300. "Radix," Mr. Pontlag, c/o Messrs. Herring & Co., 40 Aldersgate Street, E.C.

PORTSMOUTH.—Handsomely-fitted Pharmacy, near Station, Hotels, and New Town Hall; splendid position, which is fast improving; proprietor no time to attend to it; price—valuation of stock, fixtures, and improvements; good neighbourhood for a cutting business; principals only need apply. W. B. Smith, Chemist, Gosport.

TO be sold, the 40-years' established Dispensing and Prescribing Druggist and Chemist Business carried on by Mr. Charles Fletcher for the past 16 years at 46 Alfreton Road, Nottingham, and formerly carried on for many years by Mr. Oakland. Apply, Charles Rogers, Chartered Accountant, 22 Low Pavement, Nottingham.

SITUATIONS OPEN—Continued.

WANTED, an Assistant to Manage a Branch Pharmacy in Margate; outdoors. Apply to J. B. 63, High Street, Margate.

WANTED, temporary Assistant (outdoors), for about three weeks, in Light Retail business. State terms and references, T. Ordish, Pear Tree Road, Derby.

IMPROVER wanted for Mixed Drug trade. Write, stating salary and what experience, age, height, and if any photo please send it, to Cox, Chemist, 65 Broad Street, Blaenavon.

JUNIOR or Improver wanted for a General Retail and Dispensing business; hours easy; indoors. H. S., care of Messrs. Evans, Sons & Co., 56 Hanover Street, Liverpool.

IN about a month's time, an Assistant, about 22, for a Light Retail and Dispensing business, W. Address, with full particulars, enclosing photo (which will be returned), "Pharmacy," Messrs. Sanger & Sons, Oxford Street, W.

WANTED, a competent, experienced Assistant for a good Dispensing and Retail business. Apply, stating age, height, experience, references, and salary required, enclosing photo (to be returned), to S. Huggins, Barnet, Herts.

ASSISTANT, indoors; two others kept; must be a quick and accurate Dispenser, and accustomed to a good-class business. Apply, enclosing carte and stating age, height, and salary required, to Arthur Pain, Pharmaceutical Chemist, Ipswich.

JUNIOR.—Wanted, by the first week in August, a good Junior Assistant, used to Light Retail, and well up in Dispensing. State salary required, and give references (enclosing photo if convenient), to E. Silk, Teignmouth, South Devon.

IMMEDIATELY, good Junior, Light Retail and Dispensing; very little Sunday duty; time for study; knowledge of postal duties an advantage, but not essential. State references, age, height, salary required, Lemmon, Chemist, Hastings.

A GENTLEMAN of experience, qualified, and an active man of business, and competent to take a leading position in the West-end; aged about 40; single; indoors. Apply with all particulars, to X. Y. Z., care of Messrs. Horner & Sons, Mitre Square, Aldgate, E.C.

WANTED, in Mixed Country business, with considerable amount of good-class Dispensing, a trustworthy Assistant for a permanency; must be qualified; light hours; comfortable home. Full particulars to "Chemist," Messrs. Wright, Layman & Umney, 50 Southwark Street.

SEASIDE.—A Junior Assistant (indoors), accustomed to Prescribing and Dispensing, and usual Country Retail; one only kept; good references indispensable. State age, height, salary, and full particulars, with photo if convenient, to Augustine Worts, Chemist, Harwich, Essex.

WANTED, a smart active young man, with good knowledge of Mixed Drug trade (indoors), sober and obliging; one with recent Irish qualification or experience preferred. Apply, stating reference, to "Kola," c/o Messrs. Wright, Layman & Umney, 50 Southwark Street, London, S.E.

IMMEDIATELY, a qualified Assistant, not under 35; married; abstainer preferred; must be a good Prescriber; permanent situation. Apply, with full particulars of age, height, experience, salary, and photo (which will be returned). Address, F. J. D., 22 Harrington Square, London, N.W.

IMPROVER or Junior Assistant wanted immediately, in a good-class Light Retail, with Photographic, Optical, and Scientific sundries. State full particulars, with age, experience, salary required (indoors), and if now disengaged (enclose carte if convenient), to H. P. Chandler, 58 High Street, Ramsgate.

WANTED, immediately, qualified Assistant (Minor and abstainer preferred), accustomed to good-class trade, to Manage small business near Liverpool. Reply, giving full particulars, with reference and salary required (indoors); if photo be sent it will be returned; "Chemist," The Crescent, West Kirby.

AUGUST 4.—Wanted, reliable Assistant, for second-class business in City; outdoors; hours 9 to 7, Saturdays to 4, no Sunday work; qualification by examination not essential; good references; permanency to suitable man. Apply personally, if by letter give fullest particulars, 12 Wigmore Street, London, W.

FOR 3 or 4 months.—Wanted, competent Assistant, aged over 20, accustomed to good-class Retail, able to take entire charge for short periods occasionally; abstainer preferred; would suit one requiring time for study, or to recruit health. Apply, with full particulars (photo if convenient), to The Pharmacy, Hawkhurst, Kent.

IMMEDIATELY, experienced, active Assistant for Dispensing and good class General Retail; abstainer preferred; hours 9 A.M. till 7 P.M. (Saturdays 10 P.M.); no Sunday or holiday duty. Apply, with full particulars of age, salary, &c., and references, and when disengaged, to Francis Spite & Co. (Limited), St. Enoch Square, Glasgow.

SITUATIONS WANTED.

1s. for twelve words; 6d. for every six words beyond.

JUNIOR; qualified; outdoors; aged 23. Thomas, 123 Lisson Grove, N.W.

LOCUM-TENENS; disengaged July 18 to 26. "Major," 71 Evesham Street, Redditch.

WHOLESALE or Retail; outdoors; 20 years' experience. J. F., 39 Liverpool Road, N.

LOCUM; disengaged; 35; Yorkshire and district; day or week; 27 Ashworth Road, Dewsbury.

AS Assistant; outdoors; disengaged; aged 28. G. H., 18 Henwood Road, Gomm Road, Rotherhithe, S.E.

AS Assistant; outdoors; good business; Minor. "Phenazone," 35 Victoria Street, Clifton, Bristol.

LONDON; 25; tall; fluent; good dispenser; thorough experience. Faulkner, Tavora Street, Wakefield.

LOCUM-TENENS or temporary Manager; qualified; experienced. "Drug," 1 Bramall Lane, Sheffield.

LOCUM-TENENS.—Mr. Fenton, A.P.S., disengaged July 10. 9 Florence Street, Upper Street, N.

JUNIOR (22); 5 years' good experience. A., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

SURGEON'S Dispensing wanted in Western suburb; first-class testimonials. J. T., 320 Uxbridge Road, W.

MANAGERSHIP, or Branch; registered; married. Particulars, salary, "Chemicus," 1 Fore Street, Brixham.

TEMPORARY, permanency; Minor; experienced; 33; tall. T., 11 East Terrace, Fairlawn Park, Sydenham, S.E.

AS experienced Assistant or Dispenser; aged 40; registered. Address "Fortior," West Gorton Post Office, Manchester.

WHOLESALE; Traveller or indoors; 29; good references. "Statim," 22 Cranworth Street, Ardwick, Manchester.

BRANCH MANAGER; experienced; registered; good references. Address, G. P., 2 Queen's Terrace, Roundhy Road, Leeds.

LOCUM-TENENS; qualified; 50; August; disengaged; active; single. "Occupier," Lullingtoa Lodge, Harbury, Leamington.

ENERGETIC young man wishes situation as Assistant; outdoors. Address, stating hours, salary, &c., Jones, Post Office, Southampton.

WANTED, situation as Clerk, or any other positioa in good Wholesale house; West-end experience. W. Bradley, 65 Blythe Road, Kensington, W.

AS Manager; qualified; experienced Prescriber and Tooth-extractor; married, one in family. Address, "Lupus," 8 Cambridge Place, Plumstead, Kent.

ASSISTANT; aged 23; tall; abstainer; knowledge of Mechanical and Surgical Dentistry. "Chemicus," Messrs. Southall, Bros. & Barclay, Birmingham.

PERMANENCY.—Manager or Assistant; Minor; outdoors; aged 23; highest references; disengaged July 27th. "Schubmacher," Symes & Co., Liverpool.

BRANCH Manager (reading for exam.); good Prescriber and Tooth-extractor; highest references. "Peak," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

OUTDOOR Assistant or Branch Manager; aged 34; height 5 ft. 6 in.; town and country experience; Extractor; disengaged. "Alpha," 9 President Street, Goswell Road, E.C.

WANTED, engagement, temporary; Manager or otherwise; testimonials of highest merit; varied experience; middle age; disengaged July 11th. "Reliable," 102 Brayard Road, Peckham, S.E.

THOROUGH business man seeks employment in any part of good house (West preferred); 24 years' all-round experience; will be at liberty end of this month; not afraid of work. Address, "Amyl," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

WANTED, engagement as Manager, Locum-tenens, or Assistant; a seaside business preferred; qualified, experienced, good Prescriber and Extractor; would purchase a suitable business. Address, "Chemicus," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

SITUATIONS OPEN—Continued.

G. T. W. NEWSHOLME, Pharmaceutical Chemist, Sheffield, requires a Senior Assistant; qualified. State age, salary required, and references.

TO PILL-MAKERS.—Wanted, a few experienced hands. Apply, by letter only, stating experience and salary required, to "Manager," 14 Newman Street, London, W.

JUNIOR (outdoors), for good-class pushing business; must be of good address. Apply, with carte and usual particulars, to G. S. Simpkins, 75 High Street, Stourbridge.

WANTED, for 2 or 3 months, an Assistant, capable of taking temporary charge and assisting with books; 2 others kept. Apply, J. Griffith Isaac, Chemist, Neath, S. Wales.

WANTED, a competent Assistant, in high class Retail and Dispensing suburban business. Apply, by letter only, to "Alpha," Edwards & Sons, Queen Victoria Street, E.C.

AT once, a Junior Assistant (about 20), only one kept, for Light Retail and Dispensing business; personal interview preferred. W. Gilliam Gale, 148 King Street, Hammersmith, W.

A QUALIFIED Assistant (indoors); must be competent and trustworthy. Apply, stating age, height, salary required, and enclose photo, Beall & Son, Chemists, Cambridge.

WANTED, smart Manager; aged 25 to 30; outdoors; Minor. Apply, enclosing carte and references, to A. B. C., care of Messrs. Clay, Dod & Co., 52 St. Anne Street, Liverpool.

MANAGING Assistant, qualified, able to take charge of a Suburban Light Retail; indoors. State age, height, experience, salary required, Matthews & Son, Chemists, Leytonstone, N.E.

TRAVELLERS for Homœopathic Medicines, &c., at reduced prices; good commission. Address, with full particulars, to The H. M. Co., 19 Devonshire Chambers, Bishopsgate Street, E.C.

A QUALIFIED Assistant to manage a Light Retail and Prescribing business; indoors; not over 27. Personal interview preferred; if by letter enclose carte to E. B., 103 King's Cross Road.

WANTED, immediately, a Junior Assistant, for Mixed business; indoors; Protestant. Apply, stating age, height, salary required, and references, to J. B., 10 Kaludah Terrace, Widnes.

IMMEDIATE.—Outdoor qualified Assistant for entire charge of Dispensing at Branch. Apply, stating salary required, age, height, and enclose c.d.v., Wand, Chemist, Haymarket, Leicester.

IMMEDIATELY, for season, Junior; if with some knowledge of Photography preferred, but not essential. State age, height, salary required, references, &c., Thornley, Chemist, Ilfracombe.

WANTED, immediately, Junior or Improver; Light Retail and Dispensing. Apply, stating age, height, salary, and experience, to A. F., c/o V. Baker, 2 Marquis Road, Camden Square, N.W.

TO DISPENSERS.—Wanted, at once, a qualified man (outdoors); short hours; no Sunday work. Apply, by letter, stating age, experience, and salary required, to S. D. W., 136 Queen Victoria Street, E.C.

QUALIFIED Assistant wanted immediately; must be good Prescriber, neat, obliging, and of good address. Apply, stating salary, and enclosing photo, to "Verus," 66 High Street, Rhyl, North Wales.

JUNIOR Assistant (indoors), for good Dispensing and Retail, for first week in August. Apply, stating age, height, salary and references, enclosing carte if convenient, J. Mungay, 1 High Street, Cardiff.

R. JEFFREY & SON, Cheltenham, will require a good all-round Assistant towards the middle of August; aged about 23; one only kept; abstainer preferred; letters not answered in three days declined.

AT ONCE, an active Junior Assistant, about 20, for Light Retail and Dispensing business; only one kept. Apply, stating full particulars, to "Radix," Messrs. Oldfield, Pattinson & Co., Todd Street, Manchester.

GOOD Junior, qualified, for a first-class Dispensing business, neighbourhood of Liverpool; must be well recommended, and be able to assist with the books. Address, T. K., c/o C. Birchall, Advertisement Contractor, Liverpool.

SEASIDE, South Coast.—Wanted, a qualified Assistant, 21 to 28 (outdoors); must be a quick and accurate Dispenser; easy hours. Apply, stating salary, references, &c., to T. R., Office of the CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

ASSISTANT wanted, to take charge of small business for three days, 13th, 14th, 15th inst.; live in, sleep out. Address, with references and salary required, to B. F., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

WANTED, an Assistant (indoors) for Dispensing and Light Retail; one kept. Apply, R. Hiscock, 17 Broad Gate, Coventry.

WANTED, qualified Assistant for a Dispensing and Light Retail business. State references and salary required (indoors), J. A., 145 Woodhouse Lane, Leeds.

WANTED, an Assistant about 20, in a quiet business; must be obliging and attentive. Apply, stating height, salary, references, to "Alpha," 41 Silver Street, Salisbury.

AT once, 2 Juniors, indoors, about 22, for brisk Cash business. Apply, stating full particulars, to J. H. Lewis, 22 and 24 Great Portland Street, W. Also vacancy for one outdoors.

AN Assistant (qualified) to manage a branch at Wrotham, 10 miles from Maidstone, on the L. C. and D. Railway to London. Apply, with all particulars, to Corfe, Chemist, Maidstone.

MESSRS CHRISTMAS & CO., Dispensing Chemists, 818 Holloway Road, N., have a vacancy for good Junior Assistant, accustomed to Light Retail and Dispensing; time for study or lectures; state salary required and references.

JUNIOR Assistant wanted, immediately, in good business; 3 kept; hours short. Please state age, height, salary required (indoors), when disengaged, and, if possible, enclose carte (to be returned), Baker & Wright, Chemists, Chelmsford.

WANTED.—A gentleman (qualified) is required to Assist in a West-end business two or three days a week. Address, "Oxford," c/o Messrs. Sanger & Sons, 489 Oxford Street, stating terms, age, height, and how many days at liberty.

AS Junior; Minor qualification, and able to give good references; a comfortable home and gentlemanly occupation, with time for study, &c. Write, stating usual particulars, or call between 11 and 12 A.M. or 6 and 9 P.M., 45 Haymarket, S.W.

J. MARSON & SON, Stafford, require a competent Assistant for Light Retail. State experience, age, height, references, salary required, and enclose photo; no Sunday duty; one seeking a permanency will be liberally treated with.

JUNIOR Assistant in good-class Retail and Dispensing business; half-holiday weekly; comfortable home; two assistants kept. Apply, stating age, height, salary, experience, and enclose photo (returnable), H. S. Pearmund, Pharmacist, Hereford.

TWO competent outdoor Assistants wanted, for a quick cash business; abstainers preferred; must be well recommended by previous employers. Reply, stating age, height, experience, and salary required, to The Proctor Roberts Co., 13 Church Street, Camberwell, S.E.

WANTED, at once, active Manager, qualified, for Drug and Oil department, General Country business; Prescribing, Dispensing, Horse and Cattle Medicines. Apply, with full particulars and salary required, Thurston, Newent Drug Co., Newent, Gloucestershire.

WANTED, for South America, a practical Working Chemist, with a good knowledge of the Manufacture of Glue, Gelatine, Oils, &c., &c.; one who speaks Spanish preferred; salary £300 per annum. Address, stating age, qualifications, &c., to P. 2, care of Streets, Cornhill, London.

SOUTH AFRICA.—Assistant wanted for a first-class Retail in Cape Town; must be qualified and of good address; one with London experience preferred; three years engagement; passage paid out. Apply, giving full particulars, N., c/o Warner Bros., 131 Finsbury Pavement, London, E.C.

JUNIOR Assistant for a good Dispensing and Retail business in the country; easy hours; comfortable home; state age, height, experience, and salary, enclosing photo (to be returned); good salary given to an active man. Apply P. B., c/o Messrs. Barron, Harvey & Co., Giltspur Street, London.

WANTED, July 27, a competent, experienced Assistant, of gentlemanly address and industrious habits, not under 22 (indoors); a liberal salary to a steady man seeking a permanency. Apply, stating experience, references, and salary required, to Geo. Shepperley, Market Place, Nottingham.

F. ROSS SERGEANT, Chemist, Nottingham, requires a qualified Junior Assistant as Locum-tenens, from July 18th to August 18th, with option of a permanent situation afterwards; hours 8 A.M. to 8 P.M., Saturday 10 P.M.; half-holiday weekly; alternate Sunday duty (3½ hours); applications unanswered in three days declined.

MANAGER for a Branch, at once; qualified; salary £80, with commission, and unfurnished house; must be well recommended, and have had good experience; a married man, or one whose parents could reside with him, seeking a permanency preferred. Apply, with usual particulars, Barnard, 300 Hackney Road, London, N.E.

WANTED, Junior Assistant in a good-class Provincial Retail and Dispensing business near London (also a little Surgeon's, Wholesale, and Analytical); first-rate opportunity for young man wanting more experience; good home and society. Applicants should send references and particulars in the first instance to "Otto," Messrs. Baiss Bros. & Co., 4 Jewry Street, London, E.C.

BUSINESSES FOR DISPOSAL—Continued.

IN a manufacturing village, South Devon, population about 3,000; no opposition; returns nearly £500; price £280; any young man with limited capital would do well to write for particulars to Geo. Sherriff, Chemist, Paignton.

CROYDON, near; immediate disposal; established over 30 years; long garden; six-roomed house; rent £35; returns about £200; price, fair offer. "Physic," Messrs. John Sauger & Sons, 489 Oxford Street, London, W. No agents.

BRANCH Business for sale; West of England; nearly fifty miles from main business; never had proper attention; handsomely-fitted shop; good market position; will be sold for valuation; part payment can remain. Apply, "Boracic," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

YORKSHIRE (country)—Old-established Mixed Retail, Family and Dispensing business, with Gilbey's Agency; large shop; good house; extensive premises; same hands 28 years; owner retiring. For particulars, address, with reference, T. B., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

READY-MONEY Retail; Landport, Portsmouth; returning £400; a good Prescriber and Tooth-extractor could double returns; suitable for beginner; vendor about to take larger business; rent and taxes low; price moderate. Particulars by letter only, W. H. G., 202 Villiers Road, Willesden Green, London, N.W.

NEAR MANCHESTER.—Retail and Prescribing; £5 weekly, over easily doubled by pushing man; must sell, taken larger business at distance; valuation about £120; rent, &c., £15; house and shop; will trust with Assistant with view to purchase. "Pharmacy," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

FOR disposal, in rapidly rising seaside town, a well-stocked and handsomely-fitted Chemist's shop, with immediate possession; established over 11 years; splendid opening for Dentist; price moderate, which would be realised in a few months; satisfactory reason for disposal. Apply to S. B., 62 Lumley Road, Skegness, Lincolnshire.

OLD-ESTABLISHED good-class Light Retail and Dispensing Business, in country market town; net profits, £530; lease 10 years; rent £55; price £720; shop well stocked and fitted; commodious house, with garden; returns increasing; every investigation to a genuine buyer. "Pharmacist," Messrs. Hill & Son, 105 Southwark Street, S.E.

YORKSHIRE—For sale, in consequence of owner retiring, Retail, Dispensing, and Prescribing Business; returns, £1,450 yearly; same hands many years; made competency; good introduction given; price £700; strictest scrutiny allowed to those meaning business. "Yorks," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

£375.—Splendid chance for a beginner; genuine Family Dispensing and Prescribing Business, at full prices; first-class increasing neighbourhood; established 5 years; well-fitted shop and good house; moderate rent; no agents. Address, "London Suburb," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

THOMAS TOMLINSON & SON, Chemists' Valuers, 9 New Cannon Street, Manchester, have several really excellent Businesses for disposal, which they can with confidence recommend—Manchester suburb, select, £400; Bolton, mixed, £400, Manchester outskirt, £500; Salford, £700; Longton, with Mineral Waters, £700; and 15 or 16 others.

£2,000.—NORTH OF ENGLAND.—An old-established Retail and Dispensing Business, with excellent sale of own proprietaries; returns £5,000; net profits not less than £700, price £2,000, or goodwill and valuation of stock and fixtures. Address, in first instance, "Cinchona," c/o Messrs. Hearon, Squire & Francis, 38 Southwark Street, London, S.E.

SOUTH COAST. Old-established Retail and Dispensing Business, returning £3,200 per annum; net profit £1,000, solely under management; price £2,750, £2,000 cash, balance by arrangement; proprietor retiring; scope for increase under personal management. Address, "Freeholder," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

DRUG and Drysaltery Business for Sale.—Two very genuine suburban shops, now worked in conjunction, in important Worcestershire; total ingoing about £400, which includes stock, fixtures, and goodwill of both, all at valuation; returns £2,601 in 1890; profits under management £350 annually; trade this year shows marked increase. Apply, Goodeve & Evans, Cannon Street, Birmingham.

AN old-established Retail and Prescribing Business for sale, in the North of London; working neighbourhood; dense population; shop prettily fitted and very well stocked, good house, low rent, lease; proprietor would sell cheap, having other business cannot well manage to look after it; rare opportunity. Address, L. G. W., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

NEWQUAY, CORNWALL.—For immediate disposal, all that well-known, old-established Chemist's Business, with Gilbey's wine and spirit agency attached, returning about £1,200 a year; full prices for everything; lately carried on by Frederick Weston, deceased, and now managed by Mr. R. J. Newby, of Truro; stock-in-trade and fixtures valued by Messrs. Percy and Austey, of Truro; commanding premises; rent £30; season just commencing; tenders to be sent to Mr. A. E. Murray, Solicitor, St. Columb, on or before the 16th instant. Business may be inspected on application to Mr. Newby, the Manager. July 1, 1891.

NUCLEUS of Business; open 2 years; pretty northern suburb; no opposition; doing about £6; much neglected lately; nice house, stable, coachhouse, and garden; handsomely-fitted shop; rent £60; stable let £15; death cause of sale; price £400; would sell house on easy terms. Letters, "Chemicus," care of J. C. Hill & Co., Archway Road, N.

LINCOLN, High Street.—Family Retail and Prescribing Business, with Teeth-extracting; established over 50 years; populous, growing, very healthy neighbourhood; plate-glass front; commodious house, warehouse and yard; returns nearly £600; good profits; rent low; rare opportunity; proprietor leaving trade. 200/20, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

READY-MONEY Mixed Retail (with very profitable Wine and Spirit, returning nearly £500): total returns 1890 over £1,100, 1891 to June 30 nearly £600; price reduced to £500, or for valuation of stock and fixtures; can be further reduced by from £70 to £80 without hurting working stock; splendid premises, and house front street entrance; low rent; owner retiring through slightly failing health, returning to Southern California; included is a nearly new Aërated-water Plant for syphons (Mondollot's), with gas-engine, cost £60; changed hands once in nearly 60 years; in present hands 14. C. Scanlan, Droylsden, near Manchester.

BUSINESSES WANTED.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

WANTED, a good-class genuine Retail and Dispensing Business in South or West of England, requiring £2,000 to £3,000 cash; full investigation and trial wanted. Particulars in confidence to Mr. E. H. Wiseman, 94 Parrock Street, Gravesend.

WANTED, to purchase, for cash, a thoroughly genuine Retail, Dispensing, and Prescribing Business, returning £600 to £800 per annum, with good house attached. Offers, with full particulars, to E. F., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

WANTED, at once, Retail and Prescribing Business in London, returning between £400 and £500, and showing a net profit of not less than £160; proof; must have fair house accommodation. Full particulars, to save time, in strict confidence, to H. N. Costyn, 508 Kingsland Road, N.E.

ADVERTISER, who has just sold his business, near London, is open to purchase a Retail and Dispensing Business in the [illegible] South or South-West of England; would not object to a small [illegible] of Agricultural trade: capital at command up to £2,000 [illegible] culars, in confidence, to "Minor," c/o Mr. Baker, Chemist, [illegible] Road, Hornsey, Middlesex.

SALE BY AUCTION.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

NEW OXFORD STREET (close to).—The Goodwill, Stock-in-Trade, Fixtures, Shop-fittings and Effects of a Retail Surgery and Chemist's Shop, will be OFFERED by AUCTION (unless disposed of privately) by Messrs. HOLLINGSWORTH, at their Auction Rooms, on TUESDAY, JULY 21, 1891, at One o'clock. Orders to view and particulars obtained at the Auctioneers' Offices, 13 High Holborn, London.

TO LET.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

TO be Let, for a first-class Chemist's and Druggist's, No. 1 St. Paul's Mansions; commanding premises, situated at the corner of Newington Green Road and St. Paul's Road and Essex Road, Islington, N. Apply on premises, or to J. Studds & Son, Builders, Barrett's Grove, Stoke Newington, N.

RICHMOND.—Splendid opening for a Chemist; not one near; premises occupying one of the best positions in the town, near railway station; plate-glass front; unlimited scope for a pushing man; rent £50; small premium for long lease; immediate possession; rare opportunity. S., 9 Kew Road, Richmond, Surrey.

SITUATIONS OPEN.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

AN Assistant, for about a month, during holidays. Marshall Leigh, 46 Dyke Road, Brighton.

JUNIOR Assistant; good address, and accustomed to good-class trade; age about 23. Carte and particulars to Anderson & Virgo, Worcester.

WANTED, qualified Assistant; indoors; permanency; £60; good-class business. Full particulars, "Gordon," Evans, Gadd & Co., Exeter.

SITUATIONS WANTED—Continued.

JUNIOR (outdoors); in or near London. Aoklaud, 129 Jermyn Street, S.W.

TEMPORARY, by day or week; qualified. G. Walker, 117 Lever Street, E.C.

JUNIOR (22), town or country, or London. "Chemicus," 51 Shorrolds Road, Fulham.

MANAGER; view succession on easy terms; age 30. "Minor," 138 Holloway Road, N.

LOCUM-TENENS; aged 40; qualified; varied experience. X, 39 Bramley Road, W.

TEMPORARY or Branch; experienced; push business. C., 14 Oval Road, Regent's Park.

ASSISTANT, unqualified; highest references; indoors. T. P. W., Unstone, near Sheffield.

LOCUM-TENENS; qualified; outdoors; disengaged July 20. C. Thomas, 45 Caledonian Road, N.

LOCUM-TENENS or Manager; qualified; 38 years of age. "Veritas," 3 Woburn Place, Russell Square, W.

ASSISTANT; disengaged: fully experienced: good references; unqualified; abstainer. "Chemicus," 12 Chapel Street, Uxbridge.

IMPROVER; aged 19: where others are kept; good Stock hand and Counter Retail; slight knowledge of Dispensing; £20. Butler, 52 High Street, Littlehampton.

JUNIOR, quick and industrious, desires engagement; town preferred; previous engagements principally Stores. "Chemist and Druggist," 60 Mervan Road, Brixton.

JUNIOR or Improver; berth as above desired: town outskirts or country; quick and industrious: experienced Pills, Powders, Ointments, &c. "Adelaide," 60 Mervan Road, Brixton, S.W.

WHOLESALE—Chemist, Major qualification, seeks an appointment; practical experience, all departments; also a connection as Traveller, town and country. P. B., care of Carnac & Co., 42 Newman Street, London, W.

UNQUALIFIED, aged 25, with 8 years' first-class experience in Dispensing, Family, and Hospital, and in Branch management, is anxious to obtain a berth as Dispenser or Counter Assistant: unexceptional testimonials; disengaged August 30. Apply, "Radix," 252/2, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

MISCELLANEOUS.

Special charges are made for Advertisements under this heading which can be obtained on application.

EVERY Chemist should keep it.—ZONA, 1s. A perfect Occasional Belt for Ladies; no safety pin, button, or buckle; unrivalled for comfort and safety; usual discount; samples sent post free on receipt of 1s. Zona Co., 100 Charing Cross Road, London.

REMOVAL. Manufacturers have to dispose of a quantity of odd boxes of Superfatted Toilet Soaps, Shaving Sticks, &c., at half manufacturing price. Offers for bulk only, to F. H., 705, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, London, E.C.

SPECIMENS.—Wanted, the following fresh or dry Plants, suitable for herbaria; each specimen must show characteristics, and be about 5 to 8 inches long:—Papaver Somniferum, Brassica Alba, Oethusa Cynapium, Fœniculum Capillacium, Œnanthe Crocata, Matricaria Chamomilla, Borago Officinalis, Datura Stramonium, Rosmarinus Officinalis, Mentha Pulegium, Daphne Laureola, Daphne Mezereum, Juniperus Sabina, Arum Maculatum. State number of each at disposal, with price and sample, to Southall Bros. & Barclay, Birmingham.

TO Chemists.—The Proprietor of valuable Veterinary Specialities (of 25 years' standing) being obliged to give up his Retail Chemist's business, is desirous of meeting with a London or Suburban Chemist (West-end preferred) who would manufacture for him on mutual terms; an arrangement could be made for the services of advertiser's son (unqualified, but with fair Retail experience), who understands the manufacture of all the preparations; if wished, the whole of the business, carried on in spacious premises, can be acquired on easy terms. Address, "Accident," care of Shaw, Stationer, 403 Oxford Street, W.

PRELIMINARY AND MINOR.

STUDENTS! If you wish to prepare for Examination easily and thoroughly, without leaving business or expending time and money on "correspondence systems" (?), write to Mr. Filtness, Chemist, Crowboro' Cross, Tunbridge Wells, for "How to Prepare for Exam.," gratis and post free. Success guaranteed. No Fee.

PRELIMINARY AND MINOR.

TULLY'S method of preparation is without equal; send for particulars, Knotty Points in Latin Grammar, 1s. 6d.; Cæsar Simplified, 1s.; Metric System Simplified, 1s.; How to Write an Essay, 3d.; Equations Simplified, 1s.; Student's Herbarium, 100 specimens, 7s. 6d., post free. Mr. J. Tully (Hill's Prizeman), Chemist, Hastings.

ADVERTISEMENTS FOR ALMANACS, PRICE LISTS, &c.

F. H. PROSSER & CO., Spring Hill, Birmingham, will feel obliged if any Chemist publishing the above will send a copy, stating circulation and price per page. Proprietors of—

PROSSER'S ALTACID for Sour Beer.
PROSSER'S KEEPEINE for Keeping Milk, &c.
BRANFORD'S silver-coated PILLS for Toothache, &c.

Advertisements for this Supplement can be received on Friday morning, first post, though it is requested that they may be sent in as early in the week as possible.

BOOKS FOR THE CHEMIST'S LIBRARY.

"THE ART OF DISPENSING." Price 3s. 6d. By post, 3s. 10d.

"HANDY BOOK OF MEDICINE-STAMP DUTY." By E. N. ALPE, of the Solicitor's Department, Somerset House. Price 2s. 6d. By post, 2s. 9d.

"MANUAL OF PHARMACEUTICAL TESTING." By B. S. PROCTOR, F.I.C. Price 2s. 6d. By post, 2s. 9d.

NOW READY.

"VETERINARY COUNTER PRACTICE." Price 3s. 6d. Post Free, 3s. 9d.

Published at the Offices of THE CHEMIST AND DRUGGIST, 42 Cannon Street, London, E.C.; and from all Wholesale Houses.

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tion under the Apothecaries Act to give us early and confidential information. We may not be able to be of any use to the individual threatened, though in certain contingencies we will try to be, but his misfortune may be of use to the pharmaceutical commonwealth.

We have ascertained that the cases prosecuted at Pontefract were not of direct concern to chemists. The defendants were undiplomaed medical students, and were, indeed, just the persons whom the Apothecaries Act was intended to hit. If it is desirable that medical practice shall be protected at all, there is nothing to complain of in these actions. The question of counter-practice did not arise. The law, however, as it now exists in relation to unqualified medical practice is pretty much of a farce. The defendants alluded to, we understand, are still carrying on their business with only slight modifications in their method of supplying medicines. There is no law limiting the right to prescribe to any sort or condition of men, and according to our information the qualified practitioners of Pontefract are not likely to find the competition of their professedly unqualified rivals any less severe in consequence of the recent verdicts.

But there is no similar escape for the counter-prescriber. His business is to sell drugs; but the moment he begins to advise about the selection of these in particular cases he is within the swoop of the Apothecaries Act. Luckily for the Society of Apothecaries the judge and jury of the Marylebone County Court took a common-sense view of the circumstances when the action of the society against Mr. Bright came before them, and thus saved the prosecution from themselves. Had they found themselves bound to bring in a verdict in accordance with the superior wisdom furnished by the recorded dicta of the judges of the High Court, there would have been by this time a pretty solid array of pharmaceutical forces pledged to a campaign having for its object the repeal of the Act.

It can hardly be doubted that, no matter what were the intentions of the authors of the Act, or what policy the occasional intervals of prudence on the part of the court of the Society of Apothecaries may induce them to adopt, the terms of the statute are comprehensive enough to include counter-prescribing in its simplest form. The interpretation of the practice of an apothecary laid down by Mr. Justice Cresswell in the action of the Apothecaries' Society *v.* Lotinga, nearly fifty years ago, has been adopted ever since, and is not likely to be departed from while the Act remains on the statute-book. Justice Cresswell said: "An apothecary is a person who professes to judge of internal disease by its symptoms, and applies himself to cure that disease by medicine." There is no other statute in English law which limits or prohibits medical treatment by any persons or class of persons. The principle adopted in all subsequent legislation affecting medical matters is to allow anyone who likes to practise medically, but to provide strict protection of recognised titles, and to cast upon every practitioner, qualified or unqualified, responsibility for his conduct—a responsibility which is all the heavier if undertaken recklessly or ignorantly.

The repeal of the penal sections of the Apothecaries Act has been several times proposed in recent medical Bills, and was expressly advocated by the influential Royal Commission which, in 1882, considered the medical Acts with a view to extending them. A few cases such as that of the Apothecaries' Society *v.* Bright, following each other with moderate frequency, would ensure the success of a Bill in Parliament claiming relief from an oppressive enactment unsuited to the present temper of the public mind. And if the society should now be prudent enough to abstain for a year or two from such wanton provocation, chemists must not forget the power they can exercise. The opportunity of any medical Bill must be taken advantage of to press for a clause so worded as to leave the apothecaries and their Act an interesting and a harmless remnant and relic of the legislation of the Georgian period.

CHEMISTS' ASSISTANTS.

THE question has often been asked by those who watch the rush of chemists' assistants towards the Minor examination, where do they all go when they pass? Hitherto it has not been easy to find an answer, but, after the inquiry of which we publish the results to-day, it should not be difficult. The investigation reveals the fact, which was to be expected, that there are many pharmacies where assistants are not employed at all, as there are others where only unqualified men are kept. It is right to explain that our circular letter was directed especially to ascertain whether those who employ assistants have difficulty in filling vacancies at the present time. It follows, therefore, that it would be misleading to take the results as indicating the proportion of chemists who keep unqualified assistants and of those who do not. It happens that three-fourths of those who replied to our circular do keep qualified assistants, and when we find that some of them keep as many as from three to fifteen or twenty qualified men in their establishments, it is apparent, taking the number of chemists in business into consideration, that three-fourths of them cannot have qualified assistants. The latter simply do not exist in sufficient number to provide one to each master. That is really at the bottom of the difficulty which so many are now experiencing, and our inquiry amply corroborates this statement. The figures also justify us in saying that the insufficient supply is of recent origin, and can be traced to the decision in regard to the sale of poisons by employés who are not qualified. The law does not directly compel masters to employ registered chemists and druggists as assistants, though if strictly enforced it would soon have that effect practically. But there is, besides, a certain amount of moral responsibility and trade repute at stake when unqualified assistants are engaged in doing what qualified assistants only may do, so that those who can afford to employ the latter have them in preference. The problem is where to get them. The present examinational system produces them too slowly, and some of our correspondents urge that a lower standard should be instituted for assistants, which would qualify them to sell poisons, but not to keep open shop. This proposal comes five-and-twenty years too late. During that time nearly the country has recognised that a person who is qualified to sell poisons may keep open shop for doing so, and Parliament is as likely to split that principle in halves as it is to authorise free trade in poisons. We do not see how anything can be done by special means to remedy the existing state of things. Time is one of the elements, perhaps the chief element, in determining qualification, and at the rate at which assistants are now qualifying it would seem that there is a desire on their part to take advantage of the good things the masters are offering them. Year by year the additions to the register have increased, and the present year will probably beat the record in point of numbers. This is not altogether due to the contemplated increased stringency of the examination: it is part of the process of supplying a demand, and if economic theories apply here as elsewhere, the matter will, in due course, be squared, and that in more senses than one.

Apart from the mere question of supply and demand, our

inquiry throws some side lights on the present condition of pharmacy, and especially on the character of the modern chemist's assistant. Mr. Barnard S. Proctor's prophecy of pharmaceutical cannibalism is undergoing steady verification. Already many an assistant has been sacrificed to the arch-fiend "Competition and Store Prices"; in other cases the apprentice has also been dropped into the jaws of the monster ere the master has had foothold enough for his own tough fight. There is more required of assistants too. Pharmacy has advanced since the fifties, and is ever changing. To its present condition assistants have to adapt themselves, and, generally speaking, we may say that they fairly do so. Competition requires that they should be smart salesmen, and modern medicine needs them to be good chemists and expert manipulators at the dispensing counter. If they are moderate adepts at both counters, masters take care to keep them by all reasonable encouragement. But it would seem that there is a somewhat numerous class of young hands who whenever their indentures are completed plume themselves prettily, and go forth in the belief that they are full-grown birds. The same spirit returns when they pass through Galen and York Places. Youth will have its fling, and it is just as well to let these gentlemen live through their conceit. The facts which we have brought together show that at the end of it they are more thought of and more respected by masters. They have learnt more and have become more useful—both results of extended experience.

One pleasing feature about the inquiry is the revelation of growing liberalism in regard to treatment of assistants. That salaries should have grown of recent years is a necessary corollary of the increased responsibilities placed upon and improved education required in assistants. But we were not quite prepared to find the same liberal spirit so widely manifested in regard to hours. The outdoor system is apparently spreading, and as it spreads we may expect that Sunday duties and late hours on week nights will correspondingly diminish. The indoor system is largely responsible for the old condition of things. The assistants are there, why should they not work? We are all too advanced nowadays to admit that argument. After all, a druggist is a man, and was not brought into the world merely to mix potions and deal out drugs. There is something else possible for him than to work, eat, and sleep. It is not our province to tell him what he may do for humanity and the State, but we may remind him that, as one in "a nation of shopkeepers," it is possible to carry his predilection for shopkeeping further than good business requires.

The facts revealed by our inquiry do not support the arguments of those who advocate a pharmaceutical curriculum. Whatever they may say about it, everybody knows that a compulsory curriculum means more difficulty and cost in getting into the trade, and the result of these conditions would certainly be a diminished number of qualified assistants. It is an obvious reply to say, "So much the better for those who are in!" This is wise up to a point, but the question is whether that point has not been already passed. It is always possible to buy a benefit too dearly.

THE GLYCERINE MARKET.

The profound summer quietude of the chemical market was slightly rippled about two or three weeks ago by the report of an impending great rise in the price of glycerine. Various explanations, all more or less vague, were made to account for this threatened advance, and hints were thrown out that the manufacturers of crude glycerine on the Continent were about to form a combination. But the attempt to scare the drug-trade into the purchase of stock, whatever the value of the arguments at the bottom of it, has fallen decidedly flat. So far as we can learn, there is at this moment no probability of any successful combination among the producers of raw glycerine—in fact, it is doubtful whether any serious attempt has even been made to establish concerted action—but it is true that a very large quantity of crude glycerine in Paris (the principal speculative market) has recently changed hands. This parcel has been hawked about the market for a long time, and its change of ownership naturally created some momentary excitement in so sensitive a centre of speculation as Paris. But, as a matter of fact, the parcel has not gone into consumption at all: the warrants for it have simply been transferred from one banker to another, and its potency for future speculative mischief is therefore undiminished.

When the scare (if the disturbance may be dignified by that name) arose, the price of double-distilled glycerine had fallen to a level previously, we believe, unknown. Second-hand dealers were offering guaranteed pure double-distilled glycerine of 1·260 s.g. at the rate of 48*l.* per ton, and we think that at least one transaction was actually made below that figure. Now, however, the prices are somewhat higher, but the market for pharmaceutical glycerine remains exceedingly dull, and the attempts to infuse some jerky activity into it seem to partake largely of the nature of the operation known as flogging a dead horse.

Yet, judging the article in the light of past experience, there would be nothing surprising in a sudden and violent advance. The glycerine market seldom rises steadily in obedience to natural laws, but it has been known to be "rigged" to the extent of a rise of 120 per cent. within the space of a year—and that within quite recent times. The price of the pharmaceutical article is of course altogether dependent upon the fluctuations of the crude glycerine used in the manufacture of explosives and for other large industrial purposes. It is with the more or less unfinished materials, and not with the distilled article that the Paris speculators carry on their "bearing" and "bulling" pastime. Germany, though the largest producer of pharmaceutical glycerine, counts for nothing in the crude-glycerine market, for she imports from France, Russia, Holland, Belgium and England nearly all the glycerine which her manufacturers subsequently return to us in the refined state. As with the aniline-dye industry and with the manufacture of many fine chemicals, so the superior scientific and technical training of the German manufacturers has overcome both the natural and artificial disadvantages of the German markets and a flourishing industry has been created under adverse economic conditions. The Paris speculators, whose machinations practically rule the glycerine market, are in turn influenced by the greater or smaller demand for explosive material, by the condition of the American market, and many other more or less abstruse circumstances. The United States are probably the largest consumers of glycerine in the world, mainly in consequence of the gigantic scale of their railway and other engineering works requiring the use of dynamite. Their purchases have enormously increased during the last decade, for whereas in 1879–80 the American imports from all parts amounted to 3,976,995 lbs., they stood at 10,442,910 lbs. in 1885–86, at 20,695,742 lbs. in 1887–88, and at 12,021,953 lbs. in 1889–90. It would be quite a mistake to suppose that the price of pharmaceutical glycerine could be very considerably advanced without any effect upon the consumption. On the contrary, available statistics rather tend to show that every great advance in the price of the article has been followed by a marked diminution in the consump-

BURROUGHS WELLCOME & Co.

tion. And although the glycerine-distillers complain that competition has brought down prices to such a pass that they can no longer earn even a moderate profit, their best policy, in view of the fact that the margin beyond which an increase in price means a corresponding decline in the consumption, certainly appears to be to trust to an increased consumption rather than to a high price.

During the last ten years there have been two periods of very considerable advances in the price of glycerine. The first of these was in 1881 and 1882, when quotations all round rose by nearly 100 per cent., the reason of the advance being the greatly increased demand from the United States of nitroglycerine for blasting purposes in connection with new railway and other engineering works then in progress. During those two years the United States imported almost double their average takings of glycerine, but when the activity in the engineering trades ceased, the American purchases again fell to something like a normal figure, and the glycerine boom subsided proportionately. In July, 1885, continental speculators invested heavily in crude glycerine, securing control of more than one-half of the stock in the principal markets, and succeeded in again driving up the price to the extent of about 25 per cent. Combinations among the manufacturers of dynamite and the French producers of crude glycerine, coupled with an "understanding" between the latter and the principal German glycerine-refiners, enabled the combined interests to bring about a further considerable advance during the closing months of 1886, when prices again rose rapidly to the extent of about 130 per cent. Since then the quotations have fluctuated considerably, but the tendency has on the whole been a downward one, although the death of the leading "bull" speculator in Paris, which took place last year, did not cause so great a fall as had been feared in many quarters. At present crude glycerine is reported to be exceedingly active, and contracts are being made freely for the delivery of the article over the whole of next year; but, at the same time, the competition among the refiners keeps the price of the pharmaceutical article below the average proportion which has hitherto existed between it and the raw product.

COMMENTARY.

Tonquinol.—The specification of the German patent for the manufacture of this artificial musk states that it is made by taking equal parts of oil of turpentine and isobutyl alcohol, and adding to the mixture five or six times its volume of concentrated sulphuric acid, the mixture meanwhile being kept cold. After an hour or two the same quantity of fuming nitric acid is added under the necessary precautions, and when the action ceases the mixture is thrown into musk-water. From this the nitro body separates out in bright yellow flakes. The precipitate is collected on a filter, washed, and dried. When so treated the product is a yellow powder, with a strong odour of musk. It is mainly composed of a dinitro compound, mixed with a mononitro substance, and melts at 70° C.

Milk Preservatives.—Mr. A. W. Stokes read a paper on this subject at the June meeting of the Society of Public Analysts, which is reported in the *Analyst* (by the way, this journal is improved in appearance under the new *régime*). Mr. Stokes stated that milk, as delivered in London, is always acid to the extent of 0·2 per cent. of lactic acid, and within thirty to forty hours the acidity is doubled, coagulation taking place when 0·6 to 0·7 per cent. of acid is reached. He tried various preservatives, and found that boracic acid, in the proportion of 1 part to 1,000 parts of milk, was the best, this keeping the milk fresh for forty hours longer than when nothing was added. A mixture of equal parts of boracic acid and borax kept the milk fresh for twenty hours only. It is noteworthy that boiling the milk seems as efficacious as the use of any preservative.

Exclusive Analysm.—In the discussion on Mr. Stokes's paper, before mentioned, Mr. Cassall, referring to a device of Mr. Stokes's for enabling dairymen to ascertain how much soda to add to milk, said that "he regarded with strong disfavour the introduction of all devices, which were calculated to make untrained persons of various degrees of ignorance imagine that they could act as their own analysts or consulting chemists. It was highly undesirable to put these 'tests' into the hands of dairymen and others. They were edge-tools likely to wound unskilled hands; while, from a professional point of view, it was objectionable also. As it was, the public, in their ignorance, were far too ready to believe that the whole of the work of analytical chemists consisted in the application of 'tests' of this kind. He submitted that, in any case, such a step should only be taken after consultation, and with the general approval of the profession." This is a little too strong. It is better for dairymen to "test" than to taste. The latter is what most of them do, and they add a dash of the soda by guess. Mr. Stokes enables them to neutralise the milk more accurately. This is good service done. To carry out Mr. Cassall's principle, dairymen would have to keep analysts as well as cows; which is carrying the milking process a little too far.

The Medicine-stamp Duty; Drawing the Line.—Mr. A. E. Atkins, of Newport (Mon.), informs us that he has been called upon to pay a fine for having sold unstamped a box of "Tic, Neuralgia, and Face-ache Pills." The only other words on the label were: "Dose, one every four hours," and name and address. "Alpe's Manual," page 88, says: "The preparation is not considered to be liable . . . . if two ailments are named, provided that they are of a similar nature or closely allied." Several examples are then given, among which are "Gout and Rheumatic Mixture," and "Tic-douloureux and Neuralgia Mixture." Our correspondent represented this to the Board, and has received a reply, which he kindly sends us, stating that, "although it is not their practice to insist on preparations being stamped merely because two ailments form part of the title, such as "Tic and Neuralgia Pills," yet they cannot extend this concession; and if, as in the present case, more than two ailments are mentioned, they must require the article to be stamped."

The article in our last issue on "Summer Drinks" has induced Messrs. G. Vogt & Co., of 19 Laurence Pountney Lane, E.C., to send us samples of fruit-extracts for making syrups. These are essences, ready coloured and acidified, which have only to be added to syrup in order to produce a full-flavoured article. In this way one can produce cherry, coffee, raspberry, strawberry, lemon, pineapple, and all other flavours in a few seconds and with little trouble.

A French Cure for Tuberculosis.—The French faculty believe that the glory of curing tuberculosis will revert to them after all. Dr. Lannelongue has communicated to the Academy of Medicine a process which he is practising, and of which he has great hopes. He inoculates tuberculous surfaces with chloride of zinc solution, beginning at the extremity of the diseased tissue with the object of circumscribing the action of the bacillus. The tissue thus acted on becomes capable of being cicatrised, and is gradually removed. There is not much evidence, apparently, at present to depend upon, but Dr. Lannelongue professes to be confident of success. So did Koch.

ASSISTANTS IN PHARMACY.

A MONTH ago we printed a commentary note on the scarcity of assistants, and, that note having brought us a number of communications on the subject, we have followed the matter up by a more extended inquiry amongst chemists and druggists in the larger towns in Great Britain. We now bring together the results of our inquiry, which entirely corroborates what has previously been stated. Beginning with London wholesale houses, who, either direct or through their travellers, are the means of putting many masters and men into communication with each other, we learn that at present and for some time past there has been great difficulty in getting good assistants to supply the places of others who have gone into business themselves, or have otherwise advanced. One well-known firm, which has the reputation of supplying more assistants than any other half-dozen in London, has not had a disengaged assistant on the books this summer. Another states that the number of applicants is 50 to 70 per cent. less than formerly. One of our representatives, who called at Messrs. Orridge & Co.'s the other day, asked what their experience was, and he received the reply that there are decidedly fewer applications now than formerly for vacancies; indeed, during the last twelve months they have found it difficult to get both qualified and unqualified assistants. While our representative was there a pharmacist came in in search for a *locum-tenens*: he was quite unable to get one. Messrs. Orridge & Co. find that part of the difficulty in securing assistants is due to the fact that there is a more pronounced desire amongst the latter now to get into better-class pharmacies; they have less desire to earn so much than they have to learn more. Hence vacancies in high-class pharmacies are not long in being filled up. Still, against that has to be placed the fact that one West-end firm recently advertised for assistants, and this for the first time in over half a century. The fact remains, however, that Messrs. Orridge & Co. believe there is a desire among the well-educated assistants to gain increased experience in good houses before entering business on their own account. That view is confirmed by inquiries among wholesale houses.

How the Inquiry was made.

The means which we took to get the opinions and experience of retailers was to issue a circular to one or two of our subscribers in each of the larger towns. Replies were asked to the following questions:—

1. Do you find that you have fewer applications now than formerly for vacancies?
2. Have you experienced difficulty in getting assistants—qualified or unqualified?
3. If so, since when?
4. Do assistants demand larger salaries, or are they more particular in regard to hours?
5. Are your assistants indoor or outdoor, qualified or unqualified?

We have received replies from most of those whom we addressed. Setting aside, in the meantime, those who have not recently had changes in their staffs, we find that of the others three-fourths reply in the affirmative to the first and second questions, and of the remainder a third reply in the negative, and two-thirds have had fewer applications for vacancies, but not more difficulty in filling them. One tells us that he has no fewer replies, for he "had about thirty applications from last advertisement inserted in The Chemist and Druggist" By sorting the replies, one hundred come out as follows:—

Fewer applications from and difficulty in getting assistants ..	53
Fewer applications, but no difficulty	24
Neither	11
No recent changes, or discontinued keeping assistants.. ..	12
	100

As we comment elsewhere on the results of this inquiry, it will be more appropriate here to confine our remarks to the known or probable causes of the scarcity. It may be mentioned that

Our Circular Letter

was to the effect that in The Chemist and Druggist Supplement there were on June 20 eighty-five vacancies advertised and forty-one advertisers wanting situations. "In the corresponding weeks in the three previous years we find as follows:—

	Situations open	Situations wanted
1888	17	29
1889	19	33
1890	56	30

We are aware that during the past three years The Chemist and Druggist Supplement, as a medium for such advertisements, has increased in popularity; but, allowing for that, there is clear evidence of a remarkable, growing demand for assistants. The total number of situations advertised is 149 this week (*C. & D.*, 85; *Phar. Jour.*, 64) as compared with 117 in the corresponding week last year. We have also observed that the demand for qualified assistants has steadily increased since the autumn of 1889, when an unqualified assistant was prosecuted for selling poisons."

Pharmacists without Assistants.

A painful circumstance which the inquiry has revealed is the fact that there are many cultured men in different parts of the country who have of recent years been compelled to work single-handed or with the aid of apprentices. The reason for this is amply shown by the following remarks, which we take from the letters of men of repute:

"For some time, in consequence of the severe competition in trade, I have worked my business with apprentices, occasionally employing an assistant when an apprentice leaves before the other is ready to take his place. The last assistant left me in May, 1890."

. . . . . .

"I do not quite understand the extensive demand there is for assistants, because there must be plenty of businesses like this where assistants were always kept, but in consequence of the competition with stores, &c., business has fallen off. At any rate, I have been able to work mine without the aid of an assistant; but of course the confinement is very great, as I have to be always here, only venturing out for two hours of a Sunday morning, except on very rare occasions.

"I dispense for two medical men in the town, and consequently have my time pretty well occupied, but still it would not pay to keep an assistant.

"But this system of working alone necessitates my getting many things from the wholesale houses which in my early days in the trade used invariably to be made at home. I refer to tinctures, stock pills, &c. I know a good many of the old-time chemists would not dream of getting their tinctures, &c., from a wholesale house; but my opinion is that they are a great deal cheaper and more reliable than the same things made at home by apprentices and junior assistants."

The Fourth Question.

We expected that this would bring out some interesting facts, and we have not been disappointed. Here are replies from those who have had no difficulty in getting assistants:—

"My assistants work on a profit-sharing system, and, as our hours are light (Thursday, half-holiday), I have had no complaints at all yet."

"Qualified juniors, with little experience, seem to overrate the value of their services."

"Do not find any larger demand for salaries. Best men generally ask least regarding hours' work, on a social system of give and take."

"Larger salaries. Have no difficulty respecting hours, as we close at 7 o'clock here—Thursdays at 4."

"Hours are light in this town—7.30 till 8. Close on Wednesday at 4 P.M."

"Larger salaries, but no bother about hours. Ours are long in season, but we give special advantages. One hour in day for exercise is one."

"We have always well remunerated our assistants and our hours satisfy them. We have not raised salaries. Some applicants ask higher salaries than

formerly, but they appear to be generally the least desirable men who do so."

"I think they demand larger salaries, and are not disposed to work so long as I had to do twenty years ago and less."

"They require more salary and demand more time."

"Are they more particular in regard to hours? Do not think so, considering one of ours, instead of being home at 11 P.M., did not return till 8 A.M. next morning, one day this week."

A Northern correspondent informs us that his hours "are very easy, say 8 A.M. to 7 P.M. Friday, some close at 1 P.M., some at 4 P.M. Saturday, close at 9 P.M.; some 10." This has no direct bearing upon the assistant question, for our correspondent does not keep one, but it is one more example of

Progress in Labour Hours.

In the former note we instanced some of the metropolitan stores as being in favour with assistants, and we thought it would be interesting to get the replies of the qualified manager of the drug-department of one of the largest of them. They are:—

Question 1.—As regards qualified men—Yes. Unqualified—No.

Question 2.—Qualified *good* men—Yes. Unqualified—No.

Question 3.—Last two years or so in particular, increasing daily.

Question 4.—Qualified men—Yes. Do not complain of our hours, which are 8 30 A.M. till 7 P.M.; Saturdays, 3 P.M.

Question 5.—Outdoor. For dispensing, all qualified; and for counter, both.

The Modern Chemist's Assistant.

From the large number of replies in other sections we have an indication of how the modern chemist's assistant strikes the modern employer. It should be said that many of the replies which we quote here are written by men whose experience of pharmacy extends back from two to five decades, and although the replies are occasionally contradictory, we give them as showing the general experience of the trade. The districts from which they are drawn are Arbroath, N.B., Ashton-under-Lyne, Bath, Bradford, Brighton, Bristol, West Bromwich, Edinburgh, Kidderminster, Llanelly, London (wholesale and retail), Manchester, Newcastle-on-Tyne, Peterborough, Plymouth, Preston, Stafford, Stratford-on-Avon, Sunderland, and Woolwich.

"We now always give salaries 50 per cent. higher than formerly, and have reduced the hours and increased holidays very much. Qualified assistants are now of very superior class as regards manners, address, and general culture to those who previously applied. Although the assistant expects so much more in the way of accommodation, leisure, and salary, he is no exception to the law that 'assistants will give to their employers in exact proportion to what the employers give their assistants.'"

"They look for more salary, shorter hours, and less drudgery, cleaning up, &c."

"Salaries about 15 per cent. more than ten years ago."

"We find they demand larger salaries, and sometimes ask absurdly exorbitant terms, but as a rule these are young men fresh from the examination-room, brimful of equations, and blown out with gas, and anxious to impress you with the importance of the Minor qualification. They are also much more particular about hours. A stock question of theirs is '*Please state your hours and Sunday duty!*'"

"More salary, more particular as to hours, and less well up in business."

"Indoor situations are not so attractive now; assistants desire and deserve time for meals, shorter hours, and better pay. My last apprentice is now thinking of going in for Board schoolmaster; I can't blame him. In this neighbourhood apprentices are scarce; business prospects and amount of study required repel them, coupled with the long hours compared with other trades."

"We do not notice much difference in regard to salaries, but consider the hours in some districts simply abominable."

"Chemists' assistants are much too 'perky' now, and are lamentably deficient in business habits and the most elementary trading knowledge."

"They demand larger salaries, and are much more particular in regard to hours."

"They seem to be more afraid of work than of old."

"They expect rather higher salaries, but our experience is that it is the worst assistants who make most fuss about the exact hours, and we always give preference to one who does not lay particular stress on the matter, because he is probably a steady fellow, and more likely to stay with us and give satisfaction."

"Naturally, knowing the scarcity, they look for a higher wage, and get it; short hours is a question generally asked by applicants."

"They want and expect more money, and short hours is always a sore point, which, however, I have got over by simply keeping one or two on duty after a certain hour in the evening."

"They are more particular in regard to hours, especially in Sunday duties."

"We pay more liberally than twenty years ago. Not particular in regard to hours."

"Qualified men are too particular, and as they are not so easily managed, all my assistants are unqualified, and I keep eight."

"Our hours are from 8.30 to 7.30," writes one who has not had a change in his staff for several years.

"Certainly more money is wanted. Our hours are not excessive, and we have no grumbling on that score."

"We give very good wages and short hours. Qualified men, 2*l.* 2*s.* to 2*l.* 15*s.* weekly; juniors, 1*l.* 1*s.* to 1*l.* 10*l.* weekly, outdoors." [This is from a firm who have few applications from juniors, but more from qualified men. They add that they "experience difficulty in getting honest assistants."]

"Qualified men require more salary, but all kinds require more leisure."

"Long hours undoubtedly have a good deal to answer for, and rightly, I think. Life is too short to be kept at it morning, noon, and night. If a man cannot make a living for himself and assistants between 8 A.M. and 8 P.M., he cannot by tacking two or three extra hours on to that; and the sooner he throws it up the better. We close all the year round at 7 P.M., and one stays in alternately until 9 P.M., when we lock up. It works well, and we lose nothing. It is absurd for chemists to say it cannot be done. It can be done, and very easily, too, if Brown will not be jealous because he saw Jones's gas burning a quarter of an hour longer than his own, and if he will only remember that he may want to keep his gas going half an hour longer the next night."

"For a number of years we employed a senior (as managing assistant, indoor) and a junior; but every senior, without exception, came to us with excellent references, both from employers and travellers, and all were drunken wastrels. They are all right for a week, until they get your confidence, and then woe betide your business if you happen to leave it in their charge some night. The juniors lived like fighting-cocks on Brand's essence and Valentine's meat-juice, in spite of our closest watching. Besides, the last five were more trouble than they were worth. Our last senior we found parading in front of the shop-door with his apron over the back part of his body and a 'bustle' attached—the result of S.V.R. Our neighbouring chemist has been laid up with influenza for five weeks. He got a man from Liverpool, as well recommended as any man could be; but on Saturday last he ordered every customer out of the shop as soon as they entered, and used language at that. Chemists' assistants are a fearfully drunken lot—that is, the wandering kind—and they seem to be getting worse."

"A friend of mine has been without a qualified assistant for twenty-five weeks. He believes there are no good ones to be had. Now he is having an unqualified man."

When did the Scarcity Begin?

The larger part of the replies do not specifically fix a date for the scarcity of assistants. Some say "a few years," and others make no reply at all. The following is a fair summary of the rest:—

The difficulty quite recent—that is, since last autumn.	The experience of six.
Since the spring of 1890.	Twelve mention about this time.
Since the Wheeldon Case.	Definitely stated by four.
Since 1889.	Fifteen so specify, or "about two years."
About three years.	Experienced by nine.
About four or five years.	Two replies.
Since 1880.	One reply.
Since ten or fifteen years ago.	One reply.

It would, then, appear that out of fifty chemists who have experienced difficulty in getting qualified assistants, thirty-one fix the beginning of the difficulty on or about the time that young Wheeldon, an apprentice, was prosecuted by the Pharmaceutical Society for selling poison. This was in November, 1889. But it is clear that there is a more recent lack of material, and our figures are emphasized by the statements of wholesale houses, who agree that at present there is an acute difficulty in filling vacancies. Some of our correspondents suggest remedies for enlarging the supply of qualified men. This generally is in the direction of lowering the qualification, such as accepting the Apothecaries' Society's assistant's qualification. We need not enter upon that here, but submit the facts which the inquiry has brought out to the consideration of all who are interested in the subject. As to its importance there can be no question.

We find, on examining the replies to the fifth question, that thirty of our correspondents keep only outdoor assistants, and nineteen of these have had no difficulty in filling their vacancies. We exclude our Scotch replies from this department, as the indoor system is confined to two or three houses there. Of forty who keep only indoor assistants, twenty-four say that they have difficulty in getting assistants. Ten report to us that they keep both indoor and outdoor assistants. The replies also indicate that three-fourths of those who do keep assistants have them qualified or qualified and unqualified. As already indicated, there are some who keep only unqualified assistants. Twenty-one have unqualified assistants only, some of them having from three to eight on their staff; four have apprentices, and eight work single-handed. As these figures are taken from all parts of the country, and mainly from towns where there are six chemists and upwards, they may fairly be taken to represent the general condition of pharmacy in Great Britain.

Gazette.

PARTNERSHIPS DISSOLVED.

Clarke, B., and Colquhoun, W. B., Upper Clapton and Stoke Newington, medical practitioners, surgeons, and accoucheurs.

Hartridge, W. B., and Shells, F. W., under the style of the Fruitonic Company, Artillery Street, Bishopsgate Street Without, manufacturing purveyors; as far as regards W. B. Hartridge.

Thompson, J. E., Holt, R. L., and Holt, J. A., under the style of Holt & Co., Southport, manufacturers of self-polishing waterproof blacking, metal-polishing paste, superior furniture-cream, and harness-blacking.

Turtle & Warner, Woodford, general medical practitioners.

Whitby & Wilmot, Leamington, physicians, surgeons, and accoucheurs.

Woodfall, T. B., Fuller, W. J., and Smyth, F., under the style of W. Woodhams & Co., Copeland Road, Peckham, British wine, vinegar, and non-alcoholic wine manufacturers; as far as regards W. J. Fuller.

THE BANKRUPTCY ACTS, 1883 AND 1890.

Wiggins, Edward Joynes, the Circus, Greenwich, and Budge Row, City, chemical agent.

Personalities.

Mr. William Skinner is fitting up a pharmacy in Gray Street, Broughty Ferry, N.B. Mr. Skinner was formerly with Mr. Park, of that town, as an apprentice.

Mr. G. A. Grierson, F.L.S., who for a number of years has acted as laboratory manager for Mr. G. T. W. Newsholme, of Sheffield, has accepted a similar appointment with Messrs. Wm. Bleasdale & Co., York.

Squire's "Companion to the British Pharmacopœia," by Mr. Squire, has just been published in Chinese, the translation having been prepared by Dr. Hunter, of the American Presbyterian Mission.

The Marylebone *Independent* of last Saturday contains an *in memoriam* poem, signed J. C. H., of which we are told the West Marylebone Divisional Secretary of the Pharmaceutical Society is the author.

Mr. Wm. Hall Wickham, one of the senior partners in the firm of McKesson & Robbins, of New York, favoured us with a call on Tuesday. Mr. Wickham, who is a frequent visitor to Europe, leaves Liverpool on Saturday by the s.s. *Alaska* for New York.

We are told that our report of the action of Dunn *v.* Bruce last week may suggest that the plaintiff is still in business as a chemical manufacturer at the Stirling Chemical Works, West Ham. We hope all readers of The Chemist and Druggist are aware that he retired last Christmas in favour of Mr. Thomas Tyrer, who now carries on the concern.

NEW COMPANIES.

Skipton Drug Company (Limited).—Capital, 1,500*l.*, in 5*l.* shares. Objects: To carry on generally at Skipton, Yorks, the business of wholesale and retail chemists and druggists, &c. The first subscribers are:—W. E. Moffet, 30 Broughton Road, Skipton, chemist and druggist, 1 share; J. Jackman, Long Preston, wool-merchant, 1 share; A. E. Wilson, Skipton, druggist's assistant, 10 shares; J. Winskill, Settle, builder, 1 share; M. Mason, Settle, stockbroker, 1 share; J. Wilson, Settle, manager of printing company, 10 shares; R. T. Wildman, Long Preston, registrar. There shall be seven directors, who are to be appointed by the subscribers to the memorandum of association. Qualification, 10*l.* Remuneration to be determined in general meeting. Registered office, 77 High Street, Skipton.

Thomas Shields & Co. (Limited).—The following are fuller particulars of this company, formed to take over the stock, fittings, plant, &c., and carry on the business of wholesale and retail chemists and druggists, chemical manufacturers, &c., presently carried on by Archd. Galbraith Faulds, physician, under the name of the North British Apothecaries' Hall, at 37 Dundas Street, Glasgow. The nominal capital is 500*l.*, in 1*l.* shares, and the registered office is at 37 Dundas Street, Glasgow. All the shares are taken up by the subscribers of the memorandum of association. Thomas Shields, chemist's assistant, 37 Dundas Street, Glasgow, takes 494 shares, and the following have one share each:—Janet Terras Shields, wife of the above-named Thomas Shields, 36 Dundas Street, Glasgow; Agnes Shields, widow, 10 Union Place, Grangemouth; Robert Crawford, M.D., 2 Windsor Terrace, Glasgow; Matthew Dunning, chemist and druggist, 64 Abbotsford Place, Glasgow; James G. MacDougall, accountant, 7 Rupert Street, Glasgow; Charles Edward Salmon, L.R.C.P. and L.R.C.S.E., 18 St. James Terrace, Hillhead, Glasgow.

Razzianal.—Messrs. May, Roberts & Co. are suggesting in their advertisement this week a packet of their "Razzia" insect-powder as a valuable addition to the sea-siders' outfit.

Electric Light has been used as a therapeutic agent by Dr. Estanislao von Stein in the treatment of neurasthenic, hysterical, and rheumatic affections. When the doctor illuminates a painful joint or nerve, as in cases of sciatica, for two to five minutes, he has obtained surprising results.

Notice to Retail Buyers:—It should be remembered that the quotations in this section are invariably the lowest net cash prices actually paid for large quantities in bulk. In many cases allowances have to be added before ordinary prices can be ascertained. Frequently goods must be picked and sorted to suit the demands of the retail trade, causing much labour and the accumulation of rejections, not all of which are suitable, even for manufacturing purposes.

It should also be recollected that for many articles the range of quality is very wide.

42 CANNON STREET, July 9.

MINCING LANE AND MARK LANE were to have contended for the cricket supremacy on Tuesday last at Kennington Oval. Unfortunately, the weather prevented a conclusive result being arrived at. Mr. W. W. Green captained the Mincingians, while Mr. A. S. Johnston led the Markers. Both sides sold tickets energetically, and we understand that Mr. Green's efforts resulted in a cheque for 50*l.* 8*s.* 6*d.*, handed over to the treasurer of the London Commercial Sale Rooms Benevolent Fund. Business began at noon exactly, and the Mincingians occupied the wickets between that hour and luncheon. Heavy rain came down before the contest could be renewed, but we hear there is a probability of a renewal of hostilities before the season closes. The following is the score, as far as it went:—

MINCING LANE.

P. R. Harrower, c Jupp, b Swift	18
S. Higgins, c Johnston, b Phillips	5
F. Goad, b Swift	0
E. Figgis, b Phillips	5
N. E. Bieber, c Johnston, b Swift	4
A. C. Patterson, b Swift	13
S. W. Underhill, c Swift, b Robins	14
S. H. Duder, c Johnston, b Walker	27
A. J. Herbert, b Walker	6
C. W. Baker, c Baker, b Robins	2
W. W. Green (capt.), not out	0
Extras ..	2
Total ..	96

THE CORN EXCHANGE eleven were:—A. S. Johnston (capt.), H. Baker, E. L. Swift, E. P. Rathbone, H. Robins, J. L. Phillips, H. C. Paice, S. H. Jupp, R. A. Walker, G. Burden, and A. A. Muller.

THERE is nothing unusually striking to report this week Ipecacuanha is again dearer; but senega is easier, and musk rhubarb, aloes, and a few other articles of less importance are flat.

THE BROMINE COMPACT.—A New York contemporary, on the basis of the note which we published on June 13, indulges in a retrospect on the bromine trade, and prophecies an "impending war." After referring to the little rift in 1886-87, when, in defiance of compact, American producers sold bromine in Europe, and German makers retaliated by consigning small supplies to the States, our contemporary goes on to say that 32 cents per lb. net was the lowest figure ever reached for bromide of potassium in the States. "That the American producers have now 'forgotten their lesson' is shown," our contemporary continues, "by the exportation of one lot of about 10,000 lbs. of bromine to France within the past week or so, and by a vigorous though quiet canvass for orders from abroad, which has been going on for some time past, the figure named being 21 cents per lb., exclusive of containers. The German syndicate, a week or so since, cabled here asking for offers on round lots of bromine, but, so far as we can learn, none were forthcoming, although a number of manufacturers were approached. The policy of substantial selling only in large quantities adopted by the combination, together with the apparent inability to maintain any understanding between the various manufacturers of potassium bromide as to prices, has led to the gradual dropping out of manufacturers, until only two firms remained in the field to any extent, though possibly a third may have made a little bromide. Even these two, however, could not agree on a rise in price; though, as they were protected by a duty of 35 per cent., it seems that they might easily have done so. With the lowering of the price of bromine and the abolition of the quantity discount the field is open to all comers, and we learn that there will probably soon be 'six Richmonds in the field.' The great difficulty of obtaining transportation for bromine itself militates somewhat against its sale direct, and the cheaper European labour places us at a disadvantage as far as competing with them on the salts in their own markets is concerned. The trouble as to transportation works both ways, however, forming as great a protection from imports as it does a barrier to exports, while our own markets are provided for by an *ad valorem* duty of 25 per cent.

ACID (CITRIC).—The quotation as we go to press is 1*s.* 7¾*d.* The exports of acid during June amounted to 852 cwt., as compared with 513 cwt. for the corresponding period in 1890, and 755 in 1889. For the six months ending June 30 the exports were 2,597 cwt. as compared with 3,219 cwt. during January 1 to June 30, 1890.

ACID (TARTARIC) has been in been in better demand during the week at the prices last quoted, upon which there is no advance.

ALOES.—One hundred and twenty-one cases of all kinds were shown, but the demand was by no means lively, and some *Curaçoas* sold. Of 45 boxes 38 sold: fine liver, 27*s.* 6*d.*; seconds, 16*s.*, and Capey sorts, 9*s.* Of a very fair supply in gourds about three-fourths sold: exceptionally fine pale liver, 60*s.*, and very ordinary to good liver, 28*s.* to 34*s.*; Capey, 20*s.* Six boxes of syrupy and granular brown *Zanzibar* aloes were offered, and bought in at 55*s.* Only 7 cases of *Cape* aloes were offered, and none sold. A lot of fair Zanzibar in skins sold at 77*s.* 6*d.*

AMBERGRIS.—A barque has arrived at a United States port which has been at the whale-fishing in the South Atlantic for about three years. Its cargo is reported to include 20 lbs. of ambergris and 2,780 barrels of sperm-oil.

ANISEED.—To-day the offers amounted to 100 packages of European seed, and 29 of Chinese star-anise. The reports regarding the crops are not encouraging, and, in consequence, prices at all the producing centres are higher. At the end of last week business was done in London at 17*s.* to 20*s.* for Russian, and 30*s.* to 32*s.* for Alicante seed. At to-day's sales 15 bags Maltese seed, somewhat mixed with coriander, were sold at 17*s.* 6*d.*, subject to the approval of the holder; 22 bags of good clean Russian also found a purchaser at 15*s.* 3*d.*, but there were no buyers for 71 bags Italian and 25 cases Chinese.

ANNATTO.—Two hundred and fourteen bags of seed were offered at the sales to-day, but only 27 bags bright, and clean *Ceylon* sold at 1¼*d.*, while the rest, fair to fine bright, is held at 1½*d.* to 2¼*d.*, a bid of 2*d.* for the best having been refused.

ANTIMONY (CRUDE).—Of 72 cases Japanese 20 sold at 20*l.* 10*s.* to 28*l.*

ASAFŒTIDA.—Eighty-eight cases of what the brokers described as pale dull grey broken block (it was stony indeed) all sold, at prices varying from 15*s* to 18*s.*

BALSAM (COPAIBA).—All that was offered this week was of Pará variety, and only a small proportion of it contained any appreciable amount of sediment; the rest was tolerably bright and thin. It was all bought in, as nothing like 2*s.* was offered.

BUCHU.—Six bales of nice bright-coloured short leaves of new import were offered to-day; this lot is, we believe, what was referred to by us a fortnight ago. It was quickly disposed of at 6½*d.* to 7½*d.* per lb.

CAFFEINE.—We hear that there is a slight competition between the English and foreign makers, and that in con-

sequence this article can be bought at a slightly lower figure.

CALUMBA. — Several very nice lots were exposed on Wednesday, and 30 bags (not the best) of somewhat dull colour sold before the auctions at 30*s*. Fifty bags of hold clean slices are held for 30*s*., and 8 bags of unusually large root were bought in at 55*s*.

CAMPHOR.—A hundred cases of nice white, dry, and powdery Chinese were offered to-day. Sixty-five cases of camphor oil were also offered. The landings of camphor during the present month amount to 490 cases.

CANTHARIDES.—Some bright Russian flies and sound hold Chinese failed to attract attention.

CARAWAY SEED.—Ninety bags Dutch, imported April, 1891, sold on Wednesday, without reserve, at 17*s*. to 18*s*.

CARDAMOMS.—Altogether 79 packages were offered, and were nearly all sold. Bold bleached Mysore fruit at 2*s*. 7*d*. to 3*s*. 2*d*.; medium and pale, 1*s* 10*d*. to 2*s*. 2*d*.; small and brown, 1*s*. 2*d*. to 1*s*. 4*d*.; fine Malabar, 2*s*. 6*d*.; seeds sold for 1*s*. 11*d*.

CAROBA-LEAVES.—A parcel of two bales good sound leaf was offered, but without response.

CASCARA SAGRADA.—152 packages of this bark were offered to-day, and met with fair competition, but sold at decidedly lower rates, most of it going Deptfordwards. For 112 bales of really fine large quill, well matured and brittle, 25*s*. to 25*s*. 6*d*. was paid for sliced pieces of older bark 24*s*. was the figure, and the damaged lots went for 21*s*. Forty packages are held at 30*s*.

CASCARILLA.—There was a good supply brought forward, but the only lot sold consisted of 4 bales of rather chippy bark, mixed with stones, and 15*s*. per cwt. was the price.

CASSIA FISTULA.—There is practically no demand for this article, 2 bags only, out of 60 offered, being sold; these were hold dark fruit and sold for 13*s*.

CASTOR-SEEDS.—No bid for two bags of bright, medium-sized seeds.

CASTORUM.—Ten packages sold, pile 1 at 40*s*. and 49*s*., pile 2 at 38*s*. to 41*s*., and pile 3 at 27*s*. An exceptionally good package of the last fetched 39*s*., and a parcel of pickings sold at 6*s*.

CHILLIES.—Of 71 parcels brought up to this day's auctions, 37 bags of medium bright Zanzibars, somewhat stalky, sold at 54*s*. 6*d*. to 56*s*. Two cases of powdered cayenne pepper, which we fancy we have seen before, was put up without reserve, and unreservedly withdrawn at 1*s*. 3*d*.

CINCHONA. — One hundred and fifty-nine packages of various kinds of druggists' bark were offered, but very little of it sold, the exposure in the case of some catalogues being entirely formal One lot, consisting of 200 lbs. exceptionally bold and fine *East Indian* bark, the quills being at least 5 feet long and from 6 to 8 inches in circumference, sold at 1*s*. 3*d*. A few bales of crown bark, slightly mossy, sold at 5*d*. and 6½*d*., the broker mentioning that he had sold before the auction a parcel of bark of exceptionally mossy character at 1*s*. Most of the flat Calisaya bark that was sold was damaged; the worst brought 4½*d*., second-class 10½*d*., and first-class 1*s*. 6*d*.

CINNAMON.—Thirty-eight bales Ceylon partly sold at 7*d*. to 9*d*.

CIVET.—One horn of good fair brown, fair flavour, was offered to-day, and could not find a purchaser.

CLOVES are about ¼*d*. per lb. lower. On Wednesday 100 bales Zanzibar sold without reserve. Ordinary dark, 3*d*. to 3⅛*d*.; fair to good fine, 3¼*d*. to 4*d*. Seychelles sold at 3¾*d*.

COCCULUS INDICUS.—The recent arrival from Cochin per *Manitoba*, consisting of 256 bags, was brought forward to-day, and bought in at 11*s*. 9*d*.

COCOA BUTTER.—In auction on Tuesday 250 cases of 2 cwt. each, Cadbury's make, were offered, and the whole were sold at from 1*s*. 0¼*d*. to 1*s* 0⅝*d*., being, on the average, an advance of ⅛*d*. on last month's prices. At Amsterdam on Tuesday 80,000 kilos. of Van Houten's cocoa butter were offered for sale, and were all sold, viz :—About 79,000 kilos., cakes of 10–11 kilos., in bales, 62¾ to 64¼ per ½ kilo. (about 11*d*. to 11½*d*. per lb.); about 1,000 kilos., in cakes of 500 gr., and cases of 10 kilos., 66¾ to 69¼ per ½ kilo, f.c. (1*s*. to 1*s*. 0½*d*. per lb). The market closed firm on account of the higher prices paid for Cadbury's make in London on the same day, and 66 cents per ½ kilo, f.c., is asked for cakes of 10–11 kilos.

CORIANDER.—There is more inquiry for this seed, although prices are unchanged. Forty bags were offered by one broker to-day. No offers were received for 40 bags of medium hold seed.

CUBEBS.—No business was done at the auctions to-day, although five brokers brought forward some stock, part of which at least was of doubtful origin. It was bought in at prices ranging from 7*l*. 7*s*. 6*d*. to 12*l*.

CUMIN-SEED.—This article has been in better request lately, and, in consequence, prices have been gradually growing firmer.

CUTTLE-FISH BONE.—Twenty-seven casks offered, and all sold; large and light-coloured at 3*d*, and broken white to middling dark at 2½*d*., showing a further falling-off from last sales.

DRAGON'S-BLOOD.—Twenty-seven cases were offered, but only one of these was first-class, being of a fine crimson colour, and selling at 11*l*. 15*s*.; 14 cases of bright but damp resin brought from 7*l*. 7*s*. 6*d*. to 7*l*. 12*s*. 6*d*.; dark and stony sorts fetched from 5*l*. to 5*l*. 5*s*.

ELATERIUM.—One box of Maltese cakes was bought in at 2*s*. 6*d*.

ERGOT OF RYE.—Twelve barrels of new Spanish were put up, but buyers would not go the length of the sellers' figure, something under 2*s*., and at that figure it was bought in. Some of it is in fine bold spurs.

EUCALYPTUS-LEAVES. — A parcel of very ordinary and old *E. Globulus* leaves could not find a purchaser.

EUPHORBIA PILULIFERA.—Two bales of fresh Indian herb were offered to-day, and bought in at 1*s*. 3*d*.

FENUGREEK-SEED.—There is a report that stocks of this seed are disappearing, but, however that may be, it is noteworthy that 60 bags of *Mogadore* seed, being a little more than half of what was offered at the auctions, were declared to have been sold before the sales. Best *Maracaibo* seed is quoted at 5*l*. 10*s*. to 6*l*. 5*s*. per ton.

GAMBOGE.—There was a fair supply of good pipe on show, but the bidding did not reach sellers' expectations. For one of the best parcels, consisting of 10 cases good bright pipe, partly blocky, 12*l*. 7*s*. 6*d*. was offered and refused.

GINGER.—Cochin is steady. On Wednesday the spice met with a limited demand; medium and small dull washed 32*s*. 6*d*., and bold rough 37*s*. Jamaica also went off badly, dull and lean fetching 51*s*. 6*d*. to 56*s*., good middlings 60*s*. to 64*s*. Prices all round about 1*s* lower.

GLYCERINE.—The market is reported to be firm at present.

GUM AMMONIACUM.—All that was offered was blocky, some of it being wretchedly bad, and failed to find purchasers. The prices fixed by the brokers were from 4*l*. for dark black to 6*l*. for good pale, slightly blocky.

GUM ARABIC.—Ninety cases were offered, but only a few were disposed of, no important sales being effected. The present quotations are:—*East Indian* and *Aden*: Good to fine pale frosted sifted, 60*s*. to 80*s*.; sorts, dull red to fair, 35*s*. to 55*s*. *Ghatti*: Good to fine pale selected, 45*s*. to 55*s*.; sorts, middling to good, 23*s*. to 33*s*. *Amrad*: Good and fine pale, 65*s*. to 107*s*. 6*d*; reddish to pale brown, 25*s*. to 50*s*. *Madras*: Dark to fine pale, 15*s*. to 50*s*.

GUM BENZOIN.—The offerings consisted of 113 packages, of which 19 were Siam, mostly slightly blocky dull tears. None of this was sold. Part of the *Sumatra* was disposed of: ordinary seconds, 6*l*. 10*s*. to 7*l*.; and firm, 7*l*. 5*s*. to 7*l*. 10*s*.; ordinary woody and stony outside, 4*l*. to 5*l*. 5*s*.; inferior, 2*l*. 4*s*.

GUM GUAIACUM.—A number of cases of poor block was put forward, but bidders were shy, and the gum was all taken back again.

GUM MASTIC.—Three cases of beautifully transparent and colourless resin were bought in at 2*s*. 8*d*., and 19 of second quality are held at lower figures.

GUM MYRRH.—A fair supply of this was readily sold at 3*l*. 12*s*. 6*d*. for good sorts, 3*l*. 15*s*. to 3*l*. 17*s*. 6*d*. for bold siftings, and 5*l*. 17*s*. 6*d*. to 6*l*. for fair half-picked, mainly consisting of large tears; pickings and smalls at from 36*s*. to 47*s*. 6*d*.

GUM SANDARAC.—Two cases of dust have been sold privately, the price not having transpired; some inferior gum did not meet with request.

HEMIDESMUS.—Four parcels of this root ("Smilax" it is called in the Lane) were offered, and were bought in at 6*d*.

HONEY.—Twenty-four packages *Jamaica* clear amber-coloured non-crystallised sold at from 30*s*. to 33*s*. 6*d*. Two cases of *New Zealand* also sold at 30*s*, while 50 cases of *Italian* and 16 cases of *Chilian* did not find buyers.

IPECACUANHA.—Holders of this drug again allowed 53 packages to come up for competition; after a little shyness the bidding was brisk, and left the drug at an advance of at least 3*d*. per lb. The prices paid were for good, rather thinnish root, 7*s*. 10*d*. to 8*s*. 3*d*, the lowest price being paid for damaged root, and as high as 8*s*. 6*d*. was paid for a parcel of first-class damaged, but little of it being affected by water, and the price being justified by the exceptionally bold character of the root. The bidding created some excitement, and the parcels found their way all over the room.

JALAP.—Four bales of clean small to bold tubers were sold to-day at 1*s*. 2*d*., subject to the approval of the holder.

JUNIPER BERRIES.—The Italian market is quiet. Here 11*s*. is asked for good sound berries.

KAMALA.—There were no purchasers for half a dozen cases of this that were offered. The drug was all heavier than it ought to be.

KOLA.—A number of packages changed hands: fine bold, partly crimson seeds, at 8*d*.; fair bright, slightly damaged, $5\frac{1}{2}$*d*. to 6*d*. The rest were of inferior quality, several lots being bought in at as low as 2*d*. These never saw the *Sterculia acuminata*.

LIQUORICE-ROOT.—Some exceptionally thick root, bright in colour, and some that was inordinately fibrous, was brought forward without result. A lot of soft but soluble juice sold at 6*s*. per cwt.

MACE is unaltered; ordinary Bombay sold at 2*s*. 1*d*., and West Indian at 2*s*. 1*d*. to 2*s* 6*d*. per lb.

MENTHOL CRYSTALS.—We noticed several good parcels of menthol—the greater part of it being in dry detached crystals—but the prices asked (8*s*. to 10*s*. 6*d*.) were much too high to tempt any purchasers.

MUSK.—There was the usual show of *Tonquin* and *Cabardine* pods which is necessary to perfume buyers on the show-days, and the principal sales consisted of some Russian cabardine, offered without reserve, which fetched from 14*s*. to 16*s*. At the last sales 14*s*. 6*d*. was refused for this parcel. Some old-looking *Grain*, in bottle, sold at 8*s*.; a better lot at 16*s*.

NUTMEGS.—Wednesday's sales left the prices of West Indian as follow: 78 at 2*s*. 7*d*., 101 at 2*s*. 3*d*., 108 to 112 at 2*s*. 1*d*., 83 and 87 in shell at 1*s*. 3*d*. to 1*s*. 4*d*. per lb.

NUX VOMICA.—There were samples representing 65 bags on show on Wednesday, and the lot was sold to-day. Good bright Cochin, 10*s*. to 11*s*. 6*d*.; 4 bags of seeds damaged with cocoa-nut oil selling at 8*s*.

OILS (ESSENTIAL).—*Anise*: 4 cases of star-anise oil, unworked, were offered, and bought in at 6*s*. 6*d*. *Camphor oil*: As already noted, 15 cases of Japanese oil, very dark and slightly muddy, were sold at 23*s*. *Citronella oil*: There was an attempt to sell 20 cases by one broker. He was prepared to take $\frac{5}{8}$*d*., but could not get it. *Cassia oil*: 10 cases of brown oil, which appears to be aged, were offered, and a bid of 3*s*. 3*d*. made; the price, however, was 3*s*. 5*d*., and the parcel was bought in at 3*s*. 6*d*. *Cajuput oil*: A lot of this oil, rather mixed as to colour, sold at 3*s*. per bottle. *Lemongrass oil*: 6 packages sold at $1\frac{3}{4}$*d*. to $1\frac{1}{2}$*d*.; the lowest was dull and dark. *Nutmeg oil*: A new parcel of this oil sold at 3*d*. There were also offers of bay, bergamot, cinnamon, cinnamon-leaf, and Japanese peppermint oil, but none sold.

OPIUM.—Reports from Smyrna regarding last month's sales state that 170 cases were disposed of, and, as 70 of these were bought during the week ending June 27, the market at the close of the month was firm and prices rising; but it was expected that with the coming in of the new crop there would be a decline. The weather had been very favourable for the late sowings, so much so that it is now expected that this year's outturn (including the Salonica and Malatia districts) will exceed 8,000 cases, besides which there still remain on hand about 1,200 cases of old drug. Up to June 27 the arrivals amounted to 250 baskets, against 42 at the same time last year. What has come forward is of fairly satisfactory quality, but it is yet too early to pronounce an opinion, because the opium from the upper districts, which produce the bulk of the crop, will not commence to appear in the market before the end of July. Our correspondents in Salonica, under date July 1, advise us that speculation there, for the moment, was tranquil. They confirm previous advices as to the yield in certain districts being above the average, and in some places the quality of the drug is very fine, although in others it is distinctly inferior, the paste being strong, brown, and wanting in brilliance. Much of the yield is likely to be turned into manufacturing opium. The stock held amounts to about 2,000 lbs., and only 500 or 600 lbs. have changed hands, business being practically at a standstill pending information regarding American orders. The telegraphic report from Smyrna, which we published last week, shows that the centres have now obtained relief on that score, although to-day's news shows that active buying has not yet commenced.

ORANGE PEEL.—Eight bags of large cuttings, poor in colour, sold at 1*d*.; and 15 packages were bought in at from 7*d*. to 1*s*.

ORRIS-ROOT is no longer procurable at Leghorn in any but retail lots, although the prices are a little lower than our last quotations, picked Florentine in casks being 100*s*. f.o.b., and Verona root 47*s*. 6*d*. to 48*s* 6*d*. Four serons of imperfectly-dried dark root were sold at 50*s*.

PAREIRA BRAVA.—Thirty-five bales of fair small to bold root in slices sold at 30*s*.

PATCHOULI.—Sound leaves sold to-day at $3\frac{3}{4}$*d*.

PEPPER.—Prices have again been lower this week, and business has been done in Singapore berries at 4*d*. for arrival by August steamer. Since Tuesday's sales Singapore black, August-September, has been offered at $3\frac{15}{16}$*d*, and privately small lots have been sold at $3\frac{7}{8}$*d*. Fair dull white Singapore sold in auction at 6*d*, and fair Siam at $6\frac{1}{4}$*d*.

PIMENTO.—Over 1,000 bags were offered on Wednesday, but were mostly bought in, and are held firmly at $2\frac{3}{8}$*d*. to $2\frac{1}{2}$*d*. Common grey to middling were sold at $2\frac{1}{4}$*d*. and $2\frac{7}{16}$*d*.

QUASSIA.—Forty-five bags of slightly damaged chips sold at 8*l*.

QUICKSILVER.—The closing price this afternoon was 7*l*. 15*s*, and at that the metal is firm. Seconds are not obtainable at less than that figure.

QUININE.—The market is still very dull at the last quotation for *German*, $10\frac{7}{8}$*d*.

RHUBARB.—The offer of 55 packages included some new high-dried Shensi. Bidding was only fairly brisk, and 1*s*. 8*d*. was obtained for the best of the variety named; a little being sold also at 1*s*. 4*d*. Bold Canton, with well-coloured and even fracture at 1*s*. 3*d*. to 1*s*. 4*d*.

SARSAPARILLA.—Forty-six packages offered and nearly all sold; 33 bales *Jamaica*, all more or less damaged, sold at from 1*s*. 1*d*. to 1*s*. 3*d*., the sound fetching 1*s*. 4*d*.; 2 bales of good bold Guayaquil sold at $11\frac{1}{2}$*d*.

SCAMMONY.—Although there was a large supply of root, and gum offered at the auctions to-day, the only transactions have been privately, and the price has not transpired.

SENEGA-ROOT.—There were no sales to-day, but the drug can be bought at, if anything, a lower price.

SENNA.—The first lots of the new crops were offered to-day. In quality the leaves are below par. The quantity placed amounted to 252 packages, and a few dozen bales of Tinnevelly sold at ¾*d.* to 1¼*d.* for small specky; bold, fair to bright, 1¾*d.* to 2½*d.* Alexandrian (broken to bold whole leaf and good pods) was also offered, but ineffectually.

SHELLAC.—A moderate supply of 1412 chests was offered on Tuesday, but there was little demand, and only 571 chests sold. Fine bright ASSL, part blocky, bought in at 90*s.* Second orange, 352 chests sold: worked, fine pale cakey at 86*s.* to 87*s.*; good bright, partly blocky, 82*s.* to 83*s.*; good bright, unworked, at 86*s.* to 87*s.*; fair reddish, 80*s.* to 82*s.* Button, 133 chests sold: worked, firsts, 89*s.*; seconds, 83*s.* to 85*s.*; thirds, 78*s.*; unworked, 82*s.* to 86*s.* according to quality. Garnet, 86 chests sold: worked, free glassy AC, 79*s.*; good strong, but fresh water-damaged, 71*s.* to 72*s.*; unworked, free glassy AC, at 78*s.* per cwt. Privately the market is steady, with fair inquiry on the spot since the sales, but business is unimportant. The total amount of shellac imported into London during the twelve months ending June 30 was 45,283 chests, as compared with 31,452 the year before. In the same period there were delivered 58,689 chests (1890–91) and 53,934 chests (1889–90). The favourable figures for the month of June have, for the moment, stiffened prices. Advices from Calcutta confirm the report of the excited condition of the market there, which we referred to a fortnight ago. That excitement continued for several days after our last reports left, then holders became so impracticable in their demands that business has since ceased altogether, prices asked being too high. Up to Wednesday 1,395 cases of shellac had been landed in London since July 1.

TAMARINDS.—Fifty-eight barrels of old-stock Barbadoes sold without reserve and very quickly at 6*s.* 6*d.* to 7*s.* Of this year's import 40 packages sold at 7*s.* 6*d.*, 6 half-barrels fetching 10*s.* per cwt.

TEA.—The general opinion of new Monings is that the crop is a good one. Samples were on the market on the morning of July 3, and a fair business done at full rates, no less than 2*s.* 10*d.* per lb. being refused for a finest Ningchow. Oonfas too are good, and have sold from 1*s.* to 1*s.* 3*d.* per lb. The reception in the country, however, is disappointing, and dealers complain that they are selling very little of the new teas, and that prices are much too high. Common tarry sorts have sold from 7½*d.* to 8½*d.*, but there is a scarcity of good pure 10*d.* and 11*d.* teas. The first of the new S. Capers (10,000 boxes) arrived last Wednesday afternoon, and prove to be a very mixed lot. This ship, however, was not the first to leave, and the *Shanghai*, with the first shipment from the other side, may be expected early next week with a heavy cargo, and buyers will probably not regret waiting a few days. A considerable proportion of this shipment consists of quite common tea, and quotations the first day ranged from 7¾*d.* to 1*s.* 2*d.* Ceylons are steady, especially for finest teas and for common grades. A few "standard liquoring" invoices fetched long prices on Tuesday, but there are plenty of really good teas from 9½*d.* to 11*d.* Assams are unchanged, the bulk of the sales consisting of new season's teas, many of which are undesirable in liquor. A few fine old teas have been sold in sale at heavy sacrifices, but no quantity.

TURPENTINE.—There was a tendency to lower prices at the beginning of the week, but Liverpool reports of short stocks have made prices rather firmer forward. The spot quotations are:—American, 28*s.* 3*d.*; June–August, 28*s.* 3*d.*; September–December, 28*s.* to 28*s.* 3*d.*; January–April, 28*s.* 6*d.* to 28*s.* 9*d.*

VANILLA. — There was a very small supply, fine dark slightly crystallised, 5 to 8 inches, 7*s.* to 11*s.*; thin chocolate, 6 to 7 inches, slightly crystallised, 10*s.* 6*d.* to 11*s.* 6*d.*, and up to 13*s.* for 8½ inch; fine bold pods covered with crystals, 14*s.* 6*d.* to 15*s.* 6*d.*; and crystallised *Seychelles*, 5 to 7½ inches, 9*s.* 6*d.* Some inferior lots sold at from 6*s.* to 7*s.*

WAX (BEES').—A good supply was offered, but was mostly bought in; fair yellowish *Madagascar* brought 3*l.*, nice clean and fine grey *Jamaica* 7*l.* 2*s.* 6*d.* to 7*l.* 10*s.*

CHEMICALS IN THE NORTH OF ENGLAND.

THE chemical market, taken all round, may be described as being fairly steady.

BICARBONATE OF SODA quoted 6*l.* 15*s.* to 7*l.* per ton, less 2½ per cent. discount, in 1-cwt. bags, f.o.b. Liverpool.

BLEACHING-POWDER quiet at 6*l.* 12*s.* 6*d.* per ton on rails Widnes and St. Helens; and 6*l.* 15*s.* per ton, f.o.b. Liverpool, in softwood casks. Hardwood casks, 7*l.* per ton, f.o.b. Liverpool. Newcastle brands quoted 6*l.* 15*s.* per ton, f.o.b., softwood casks; and 7*l.* per ton for hardwood casks, f.o.b. Tyne, net cash.

CAUSTIC SODA firmer; 77-per-cent. quoted 12*l.* 5*s.* per ton; and 70-per-cent., 11*l.* per ton net, f.o.b. Tyne; 74-per-cent., 11*l.* 15*s.* per ton; 70-per-cent., 10*l.* 15*s.* per ton; 60-per-cent., 9*l.* 10*s.* per ton. *Cream caustic*, 60–62 per cent., 9*l.* 5*s.* per ton. All f.o.b. Liverpool, with a uniform allowance of half-a-crown a ton if delivery is taken at makers' works.

CHLORATE OF POTASH continues quiet at 5¾*d.* per lb., less 5 per cent., f.o.b. Liverpool, and 5½*d.* per lb., less 6 per cent, f.o.b. Tyne.

HYPOSULPHITE OF SODA firm at previous quotations, viz., 7*l.* per ton in casks, and 7*l.* 10*s.* per ton in bags, net cash, f.o.b. Tyne; and 7*l.* 10*s.* and 8*l.* per ton c.i.f. Liverpool.

SODA ASH steady at 1⅜*d.* per degree, less 4 per cent., for Newcastle brands of 48–56-per-cent. carbonated, f.o.b. Tyne; Liverpool quotations for carbonated, 48-per-cent., 5*l.* 7*s.* 6*d.* per ton; 52-per-cent., 5*l.* 16*s.* 3*d.* per ton; 58-per-cent., 6*l.* 10*s.* per ton. Caustic, 48-per-cent., 5*l.* 2*s.* 6*d.* per ton; and 52 per-cent., 4*l.* 11*s.* 3*d.* per ton, f.o.b. Liverpool, net cash.

SODA CRYSTALS quiet, at 3*l.* 5*s.* to 3*l.* 10*s.* per ton, in 3-cwt. barrels, f.o.b. Liverpool; 2*l.* 15*s.* 6*d.* per ton in casks, gross weight: and 2*l.* 15*s.* 6*d.* per ton in 2-cwt. bags, net weight, f.o.b. Tyne. Stocks reported to be very low in Tyneside.

SULPHATE OF COPPER easier, at 15*l.* 5*s.* per ton for prompt, f.o.b. Liverpool, and 16*l.* to 17*l.* per ton for forward.

SULPHATE OF SODA quiet, at 40*s.* per ton in bulk, and 50*s.* per ton ground and packed in casks, f.o.b. Tyne; 40*s.* to 42*s.* 6*d.* per ton in bulk, on rails at makers' works, Widnes and St. Helens.

AMSTERDAM BARK SALES.

AMSTERDAM, July 7.

THE following are the particulars regarding the bark to be sold at the cinchona sales at Amsterdam on July 16. Analyses show that the manufacturing bark contains about 12 tons sulphate of quinine, or about 4·10 per cent. on the average. About 19 tons contain 1–2 per cent. sulphate of quinine; 50, 2–3; 92, 3–4; 60, 4–5; 37, 5–6; 17, 6–7; 11, 7–8; 8, 8–9 per cent. sulphate of quinine.

THE SMYRNA OPIUM MARKET.

(*Telegram from our Correspondent.*)

SMYRNA, July 8.

AT the present moment the market is declining, and manufacturing opium has been sold to-day at 7*s.* 5*d.* to 7*s.* 9*d.*, f.o.b. Smyrna. This is in consequence of the sales to American buyers, so far, not having been equal to expectations. Since my last telegram, the sales to them have been 25 baskets.

THERE are thirty-two sulphuric-acid works in Scotland.

THE BOARD OF TRADE RETURNS

for June, 1891, do not compare favourably with the returns for the same month of last year. The imports show an increase for the month of 3,923,829*l.*, or nearly 11 per cent.; while for the six months ending June the increase reached the sum of 5,364,782*l.* On the other hand, exports show a net decrease for the month of June of 98,418*l.*, or less than 1 per cent., and the decrease amounts to 3,489,713*l.* in the six months. The following tables give particulars of articles in which our trades are interested:—

Imports.

—		Six months, ending June 30	
		1890	1891
Alkali	cwts.	17,721	41,496
	value £	13,123	23,563
Brimstone	cwts.	333,126	197,869
	value £	71,541	61,800
Chemical manufactures and products, unenumerated	value £	710,201	649,275
Cochineal	cwts.	4,896	3,129
	value £	31,798	19,063
Cutch and gambier ..	tons	12,629	12,163
	value £	346,702	290,199
Dyes (coal tar):—			
Aniline	value £	132,647	130,087
Alizarine	"	146,895	168,717
Other coal-tar dyes ..	"	13,336	9,341
Indigo	cwts.	65,973	46,812
	value £	1,197,835	973,988
Madder, madder root, garancine, and munjeet	cwts.	5,347	5,060
	value £	6,884	6,846
Nitre, cubic (nitrate of soda)	cwts.	1,535,153	1,950,988
	value £	641,292	830,723
Saltpetre	cwts.	172,825	164,325
	value £	154,729	146,088
Other chemicals	"	986,527	959,661
Oils:—			
Cocoanut	cwts.	78,615	100,275
	value £	98,650	148,526
Olive	tuns	13,574	8,742
	value £	522,600	357,163
Palm	cwts.	394,123	446,317
	value £	412,945	526,484
Petroleum	galls.	42,704,025	61,748,245
	value £	1,024,414	1,290,709
Seed of all kinds	tons	9,111	12,066
	value £	249,677	299,668
Train, blubber, and sperm	tons	9,771	8,409
	value £	192,823	180,949
Turpentine	cwts.	120,164	120,715
	value £	203,236	169,192
Bark, Peruvian	cwts.	63,817	63,442
	value £	192,443	157,298
Gum:—			
Arabic	cwts	26,681	27,985
	value £	81,439	82,002
Lac—seed, shell, stick, and dye	cwts.	47,997	65,673
	value £	190,562	252,081
Drugs unenumerated ..	"	466,164	405,275
Spices:—			
Cinnamon	lbs.	536,239	531,833
	value £	17,162	16,055
Ginger..	cwts.	29,164	15,277
	value £	56,099	46,782
Pepper	lbs.	15,450,039	18,677,168
	value £	388,921	402,751
Quicksilver..	lbs.	4,003,841	4,230,651
	value £	529,391	458,800
Paraffin	cwts.	237,544	302,800
	value £	297,583	421,987

Exports.

Alkali	cwts.	3,043,203	3,059,896
	value £	941,697	1,147,059
Bleaching materials ..	cwts.	820,385	729,622
	value £	239,135	245,369
Medicines (comprising drugs and medicinal preparations)	value £	522,795	517,828
Foreign chemicals re exported	value £	134,261	89,747
Peruvian bark	cwts.	57,879	58,088
	value £	132,786	108,319
Quicksilver	lbs.	2,478,624	2,036,958
	value £	307,052	224,162
Soap	cwts.	254,309	250,679
	value £	267,123	283,915
Coal products (including naphtha, paraffin, paraffin oil, and petroleum)	value £	725,077	888,503

LONDON DRUG STATISTICS.

THE following figures refer to the stocks of drugs in the port of London on June 30, 1891 and 1890, and to the imports and deliveries during the first six months of the same years.

Article	Stocks		Imported		Delivered	
	1891	1890	1891	1890	1891	1890
Aloes ..cs & pkgs	7,983	8,442	761	3,076	2,508	2,872
" .....gourds	1,196	972	207	74	186	446
Aniseed, star..chts	251	85	425	14	221	—
Arrowroot ....cks	7,806	12,374	9,498	9,512	8,560	8,349
" bxs & tins	1,809	3,119	575	244	961	3,219
Balsams ..cks, &c.	2,366	2,511	1,017	572	819	505
Bark (Cinchona),						
S.American cases	339	407	18	3	37	58
" bls, &c.	26,133	27,880	6,318	3,956	6,386	8,162
E.I., Ceylon, and Java .....cs	339	450	395	354	339	305
" bls, &c.	27,260	27,306	26,365	25,569	23,387	22,337
Borax.....pkgs	261	377	10	21	10	121
Calumba root "	965	1,376	82	192	426	700
Camphor .... "	5,014	4,472	4,478	8,729	5,066	4,290
Cardamoms ..chts	593	1,388	1,087	1,925	1,110	1,862
Cocc. Ind. bgs, &c.	341	569	227	564	111	167
Cream of Tartar cks	10	17	4	26	17	19
Cubebs .....bgs	105	140	95	60	233	229
Dragons' Blood chts	126	166	117	110	85	88
Galls, China, &c. cs	2,153	4,307	948	4,561	1,411	1,223
Teky & Pran..cks	4,440	7,119	6,365	6,845	5,431	3,164
Gums—						
Ammoniac pkgs	64	66	13	6	22	31
Animi & Copal pkgs	4,967	5,792	6,470	3,679	9,909	7,438
Arabic..... "	15,399	20,307	12,282	14,077	13,518	15,640
Asafœtida.. "	785	445	36	205	83	131
Benjamin .. "	3,388	2,530	2,255	2,007	1,787	1,570
Damar .... "	5,710	7,353	2,510	6,273	3,323	4,115
Galbanum.. "	40	34	37	24	27	24
Gamboge .. "	58	60	138	142	110	145
Guaiacum .. "	131	25	263	33	163	27
Kino ..... "	8	52	10	6	35	71
Kowrie ....tns	896	978	1,634	1,177	1,489	1,505
Mastic ....pkgs	28	13	36	—	26	14
Myrrh, E.I. "	405	252	410	103	429	299
Olibanum .. "	5,899	6,420	5,247	6,481	3,740	3,798
Sandarac .. "	548	603	871	956	525	737
Tragacanth "	5,520	7,700	4,122	3,902	4,052	3,580
Guttapercha ..tns	2,503	2,262	1,500	1,833	1,044	1,072
*Indiarubber, E.I. tns	341	133	653	312	501	428
Madagascar "	120	31	156	93	127	95
S. American "	62	40	112	118	104	118
Mozambique "	164	108	127	181	163	268
African "	89	91	76	200	73	192
Ipecac. ..cks & bgs	223	261	547	765	575	686
Jalap .....bls	82	104	140	62	168	29
Lac Dye .....chts	5,037	5,435	—	—	57	264
Nux Vomica pkgs	516	1,222	965	2,887	1,082	2,133
Oils—						
†Aniseed .....cs	53	27	121	65	70	131
†Cassia ..... "	77	12	93	255	171	273
Castor .....cks	123	148	422	769	451	832
" .....cs	3,057	2,833	4,298	3,265	3,029	3,642
Cocoa-nut....tns	940	1,133	2,161	2,023	2,330	3,506
Olive ..cks, &c.	1,175	1,473	2,631	4,098	2,102	3,406
Palm .....tns	10	10	29	27	25	36
Rhubarb.....chts	452	546	371	457	719	760
Safflower ..bls, &c.	291	391	—	93	84	162
Sarsaparilla ....bls	230	3 4	433	739	510	703
Senna ....bls., &c.	3,054	2,568	1,215	2,469	2,072	3,056
Shellac, Orange chts, &c.	25,855	37,545	14,462	13,776	24,625	17,061
Garnet.. "	3,169	6,245	4,500	1,940	5,372	5,587
Button.. "	6,507	5,147	7,164	4,145	6,153	5,158
Total chts, &c.	35,531	48,937	26,126	19,831	36,150	27,806
Stick lac ..chts, &c.	820	2,483	136	10	1,587	603
Gambier .....tns	522	357	5,296	4,492	5,288	4,850
Cutch ..... "	2,957	2,478	1,399	867	1,356	990
Turmeric, Beng. tns	847	1,188	—	12	308	269
Other varieties "	196	944	41	161	338	374
Total .....tns	1,043	2,082	41	173	644	643
Vermilion, chts, &c.	34	32	73	106	74	93
Wax, bees'..bls & srns	227	709	837	1,597	1,454	1,662
" cks & cs	662	946	717	1,159	982	1,169
" cakes	14	51	6	68	16	41
Japan veg. pkgs	623	1,601	75	381	634	425

* Present stock in Liverpool of Pará 1,709 tons, other sorts 820 tons—total 2,529 tons, compared with 1,209 tons in 1890, and 1,905 tons in 1889.

† Stock of aniseed and cassia oils lying at Smith's wharf and Brewer's quay are not included in this return.

Correspondence

Memoranda for Correspondents.

Always send your proper name and address: we do not publish them unless you wish: if you do not, please use a distinctive nom-de-plume.

Write on one side of the paper only; and devote a separate piece of paper to each query if you ask more than one, or if you are writing about other matters at the same time.

If you send us newspapers, please mark what you wish us to read.

Ask us anything of pharmaceutical interest: we shall do our best to reply.

Before writing for formulæ consult the last volume, if you have it.

Letters, queries, &c., will be attended to in the order received.

Eucalyptus Honey.—A Challenge.

SIR,—Professor Anderson Stuart has been so much occupied with his report on his investigation of the Koch cure since his return to Sydney that he has not time (at all events at present) to make a further communication on the subject of eucalyptus honey. It was, of course, unfortunate that Professor Stuart's paper had to be read during his absence in Berlin; otherwise, the apologists for eucalyptus honey would have received their answer then and there. I have taken some interest in the subject, and, for one, am not willing to let it be imagined that these apologists cannot be answered. I cannot profess to follow all the trails of the numerous red herrings which have been drawn across the track, and, as I mean business, I will come to the point at once. Eucalyptus honey is said to contain 15 to 17 per cent. of eucalyptol. I will pay 5*l.* to the Benevolent Fund of the Pharmaceutical Society if a sample of Australian natural eucalyptus honey can be produced containing only 5 per cent. even of eucalyptol. The only conditions I impose are that I receive herbarium specimens of the eucalyptus concerned, and be given the precise locality; and I will undertake that I (or a deputy) will visit the spot and examine the evidence in any part of Australia. The matter can thus be settled once for all in six months. If I am proved to be wrong, I will acknowledge it like a man; but I do not intend to let the matter rest unsettled, and people shall have the opportunity of learning the truth of this wonderful substance, if they so desire it. At present I pronounce this eucalyptus-honey romance to be one of the most impudent impositions on the credulity of medical men and pharmacists that I have heard of in connection with Australian products, and it does seem hard that more of our scientific brethren in London and Paris have not caused the emphatic repudiations of this substance by Australian scientific men during this last six years or so to be generally known amongst those to whom is entrusted the prescribing and dispensing of materia medica.

Yours truly,

The Technological Museum, Sydney, May 30. J. H. MAIDEN, Curator.

The Apothecaries' Society and their Act.

SIR,—I much admire your practical Leader *re* Apothecaries' Company's prosecution. Here is a grand opportunity for the Pharmaceutical Society. A short Bill wiping off the old statute would unite the trade, and show the Council that, if they will but adopt practical methods, they need fear no lack of trade enthusiasm. Yours truly,

Cardiff. A. HAGON.

SIR,—May I ask you to supplement my remarks of last week by calling attention to one or two other phases in the administration of the law by the Apothecaries' Company?

In the two cases at Pontefract, in which they obtained verdicts, with penalties of 20*l.* and costs, it appears the defendants were not chemists but medical practitioners without the necessary qualification. These men, it appears, were run to earth by some of the local M.D.'s.

The Apothecaries' Company, doubtless elated with success, have now renewed their attack upon the chemists, but, thanks to a discreet and intelligent jury, they have suffered defeat, and been mulcted in costs on the higher scale (section 30, however, provides for double costs).

That they should renew a struggle with chemists which was practically at an end thirteen years ago, after giving abundant assurances to the contrary, does not satisfy my ideas of that impartiality which should govern their deliberations. What can be done with an enemy who fights and runs away? Follow him up! Give him no chance to reinforce! Bring your forces to the front, and fight to the death!

We need special legislation. We have a good preamble, that may be easily proved if we go the right way about it. The Act of 1815 is carried out in a partial and truly vindictive spirit, without regard to the simple tenets of right and wrong. The society is either blind or hoodwinked, and will not or cannot see their way to an impartial exercise of their functions. They occasionally prosecute an unqualified practitioner if he practises on his own account, but as a partner of, or an unqualified assistant to, a doctor he may practise for ever and a day without interference. The only other kind of prosecution they appear to sanction is that of the duly qualified chemist for maintaining his right to "counter-practice," which they allege is an infringement of their Act. Upon this question we are at direct issue.

Why do they not carry out the 20th section of the Act by prosecuting—(1) the quacks, the herbalists, the old-women doctors, and the like; (2) the unqualified assistants, the compounders and dispensers of medicines in the employ of their own members? And what is a greater piece of negligence still is that the Society knowingly permit these unqualified assistants of the doctors to visit at their homes, clinically and otherwise, a great proportion of their patients, for whom they prescribe and dispense medicines *ad libitum*, without seeking to impose a penalty or in anyway attempting to check the system.

Section 7 of the Act ought to be repealed, giving the executive into the hands of an independent body who would do their duty faithfully and fearlessly. Herein lies the great secret. The doctor has no supervision whatever. He is but human. The lives of the public are imperilled instead of being protected. He is altogether in a different position to other men. I do not say he is dishonest, but there is no means of ensuring his honesty; he does not get the weights and measures inspector to see that he is just, nor is he prosecuted for the serious results of his carelessness (in dispensing medicines to the public) which never come to the light of day. He occupies a singularly anomalous position; he defies the coroner and the law, he is licensed to kill either by carelessness or design, and is enabled to hide his sin by that great factor—the certificate of death! This is no paradox, but a positive reality! There is no inquiry as to the cause of death, as to his maltreatment, his careless dispensing, or his wilful neglect and default; they are hidden for all time beneath the authoritative certificate, and the grave closes over his victim. Yet he it is who would prevent the chemist rendering timely assistance to any person applying for it.

The chemist of to-day is specially qualified for the position he occupies as a compounder and dispenser of medicines, and it is he, and he alone, upon whom should devolve the duties and the responsibilities. This would relieve the doctor of much trouble and anxiety, would give him more leisure for the due performance of his functions, would be the greatest possible safeguard to the public, and a satisfactory solution of the whole question.

The chemist has no wish to trespass on the doctor's domains, but he claims the right of exercising his judgment and discretion when applied to for assistance which it is in his power to render.

It must not be understood by these remarks that I reflect upon the medical profession generally. There are doctors and doctors—doctors of sterling ability, education, and refinement, estimable men who command every respect; and others in every way unfit for the position they occupy. It is to the latter my strictures are specially directed, and the sooner these are compelled to conform to the provisions of the

law, the sooner will a good understanding be arrived at, and perfect unanimity amongst the different sections of the profession, the trade, and the public be established.

Faithfully yours,

JAMES PHILLIPS.

56 Everton Road, Liverpool, July 6.

SIR,—I cannot understand why these petty prosecutions should be countenanced, while brazen quacks are allowed to recommend their wares, run the doctors down as a set of muffs, perform cures, and pocket the hard-earned wages of the working class to the tune of from 2*l.* to 20*l.*, or even more, in one evening.

The very fact of judging for themselves as to who are fit subjects, by rejecting those whom they deem incurable, and operating on those on whom they rely as favourable to a cure is sufficient to class them as undoubted opponents of the medical profession.

A quack in my district is at present driving about in grand style, and gathering a crowd about him, daily operating on the deaf and selling his wonderful cure at 1*s.* per bottle, which, by-the-by, is now in contravention of Inland Revenue regulations, if I mistake not. He acknowledges he knows nothing of drugs, and yet no doctor takes the trouble to bring pressure to bear on him. So long as a chemist does not visit, and if the public choose to go to him, he ought to be permitted to recommend for simple ailments those drugs he has studied and handled all his life. THE CHEMIST AND DRUGGIST will earn the gratitude of the whole trade in taking up this vexed question, and we wish it success.

Yours,

BUTTER. (76/58.)

SIR,—With reference to your editorial and the report of the case of the Apothecaries' Society *v.* Bright, the following extract from the preface to "Gray's Supplement" (1831), not so much known as it ought to be, is very instructive. The preface is really a critical history of the efforts of the Apothecaries' Society to obtain an independent position :—

"This Act has had the singular fortune of being violently opposed as insufficient by those who were its original promoters, of being esteemed as a burden by many of those whom it was intended to benefit, and of being looked upon with indifference by those against whom it was intended to act. Since the Act was altered to those who 'practise as apothecaries,' with an express declaration that it did not extend to the chemists and druggists, whose shops are in general confounded with those of the apothecaries, and whose business differs not otherwise than that, with the dispensing physician, or modern apothecary, medical practice is the principal object, retail and dispensing the secondary; while, with the chemist and druggist, or old apothecary, retail and dispensing are the principal, and medical practice, mostly confined to the counter or to a few personal acquaintances, the secondary; *a fortiori*, the midwives, herbalists, cuppers, barbers, electricians, galvaniser, dentists, farriers, veterinary surgeons, village wisemen, and cow-leeches are left in full possession of their ancient practice, and may be employed by those who place confidence in them, as they cannot be confounded with apothecaries, though the chemist and druggist may."

I trust the above extract will induce any who have the opportunity of doing so to read the whole preface. It is well worth the trouble.

ADELAIDE. (78/55.)

Exemption of Machinery from Rating.

SIR,—It appears that a small minority in the House of Commons, on June 3, succeeded in preventing a Bill from passing through Committee which would make clear to assessors what machinery was liable and what was not liable to rating. It is now only by the assistance of the Government that the Bill can be passed through its remaining stages. The only prospect of securing the passing of this Bill, which will be of great service to the industries of this country, is by obtaining strong official representations from such bodies as boards of guardians, assessment committees, overseers, chambers of commerce, trade unions, and other working-men's institutions, addressed to the Right Hon. W. H. Smith, M.P., the Leader of the House of Commons, stating the urgency of this measure.

The difficulty at the present time is that the understanding of the law is in a very unsettled state. Looms, for instance, are exempted from rating, while some other kinds of machinery are made liable. The Chard Board of Guardians entered upon a very extensive litigation with the manufacturers in their district. Having expended thousands of pounds, they made two appeals to superior courts, and still feel so uncertain of the results of their last appeal to the House of Lords that they compromised the whole of their cases. This is a matter of great interest, not only to all users of machinery, but to the trading and professional classes and the public generally in this country. The prosperity of England depends greatly upon the prosperity of those manufacturing industries in which machinery is employed. If the use of machinery should be decreased or abolished, England would immediately sink into a very insignificant and poor country. It is chiefly owing to the employment of machinery that Great Britain has got to be a country of great wealth and commerce. Any taxes upon the use of machinery have the effect of enhancing the cost of goods to the consumer at home, also of preventing England from competing favourably with other countries, where not only machinery, but factories also, are in very many instances entirely exempt from taxation. It is a common custom in the United States for towns and villages to promise exemption from taxes to manufacturers, as an inducement for them to establish factories. This is on account of the increased prosperity brought to the locality by the employment of labour and disbursement of wages. In some European countries this policy is now in favour, in addition to which foreign Governments put taxes upon goods which enable manufacturers to charge the home consumer more than the goods are worth. Before the protection theory is exploded in America (and it does not appear likely to last much longer), England will have her best opportunity to extend her trade abroad and have it well established. If all unnecessary taxes are removed from English manufacturers, they ought, with the benefit of free trade, to be able to manufacture and sell goods so cheap that after the Customs duties are levied upon them in foreign countries, they will still be able to compete with goods manufactured in those countries, or with any foreign merchandise.

The entire removal of taxation from machinery would give a great impetus to the manufacturing industries of Great Britain. This would necessitate the greater employment of labour, and perhaps settle the question of the unemployed at the same time that the poor-rates are relieved. Many persons are in favour of allowing localities who desire to do so to exempt machinery from rating, and, instead, to allow them to tax land values created by the presence of useful industries, to pay the public expenses of the locality. The National Society for the Exemption of Machinery from Rating, 26 Regent Street, London, will, I believe, be able to give all necessary information on this subject.

Yours truly,

July 7. S. M. BURROUGHS.

Prescriptions Accurately Prepared.

The letter of "Veritas," published on June 27, narrating the conscienceless practices of one of his employers, called forth several comments from other correspondents, indicating a state of mind which it would be euphemistic to describe as sceptical. We do not care to publish letters which may be summed up by saying that, in the writers' opinions, our friend's *nom de plume* was unfortunately chosen; but we may quote one or two passages :—

Cornubian (73/51, London, N.W.) asks pertinently: "What were the counter-attractions that made 'Veritas' assist in defrauding the Inland Revenue? Was there a division of profits? In my opinion," adds "Cornubian," addressing ourselves, "the most honourable way for you to act, having published 'Veritas's' letter in good faith, would be to hand over his communication to the solicitor for the Inland Revenue. If such men as he describes exist, they ought to

be expelled from our midst; if they exist only in 'Veritas's' imagination, then he and his libel should be exposed."

North Devon (73/67) says: "With all his varied experience, our friend 'Veritas' does not appear to have come across the gentleman (a Devon man and a J.P.) who made all his tinctures and powders from sea-water and sand."

The Price of Quinine.

SIR,—I notice in your "Commentary" an article about the exorbitant prices charged retail for quinine, and quite agree with you that it a short-sighted policy to stick to old prices.

I was more than surprised to see it stated that the price commonly charged for "Howard's Quinine" in London was 6*s.* to 8*s.* per oz. During the last three months—April, May, and June—whilst the influenza was at its height here, I sold 32 oz. of quinine, and in no instance did I ask more than 3*s.* 6*d.* per oz., and in many cases 2*s.* 6*d.*, for German, and considered myself amply repaid. Yours truly,

RUNCORN. J. H. WESTON.

The Proposed Mitcham Ring.

SIR,—We notice in your issue of June 27 a rumour that steps are being taken to form a combination in the Mitcham essential oil trade. We are very sorry if it is true, as we do not believe that trade combinations are any good to anyone in the end. We certainly shall not join or help to form it, but shall exercise our individual liberty as heretofore in supplying our customers. As for advancing the prices by combination, we think they will be high this season without it, old stocks being nearly exhausted, and the prospect of the new crop very bad. The crop is not only a very short one, but the weather is now very unfavourable, the temperature being low and the land very wet.

Yours truly,
J. & G. MILLER,
Mitcham, Surrey. Herb Growers and Distillers.

Stocktaking.

SIR,—My plan is to have a slip gummed on the bottom or the back of each bottle, drawer, or other receptacle, marked with the tare, so that the weight of the article is easily obtained. All put-up goods are lumped together, as so many dozen 1*d.*, 2*d.*, or 6*d.* goods, &c. Any goods spoilt or out of sale are not counted, but carried to loss account. Patents are put down at net prices; all other goods at current prices, less 5 per cent. discount; all packages, bottles, tins, casks, hampers, at prices charged. I make a rough book from white wrapping-paper; pages are a half-sheet doubled longways.

My balance-sheet is made out thus (suppose your stock amounts to 200*l.* net, and fixtures, less 5 per cent. for depreciation, to 150*l.*; your personal expenses, including goods supplied from the shop to the house, to 100*l.*; your customers owing you 20*l.*):—

Cr.	£	Dr.	£
Stock	200	Capital	150
Fixtures	150	Liabilities	220
Self	100	Profit	130
Book debts .. : ..	20		
Cash in hand	10		
,, ,, bank	20		
	£500		£500

By capital is meant the amount of money you started business with. This sheet is practical enough for ordinary purposes. For further divisions, see Mr. Weddell's capital book, "How do I stand?" Yours,

KOYUGA. (76/6).

Bismuthi Carbonas.

SIR,—As I have found a difficulty in dispensing with bism. carb in mixtures where no suspending agent is used, I should like to know if others have met with the same difficulty. The makers, both Howards and May & Baker, never seem to send it out of the same density, so that at times in a mixture made with it the powder remains stationary for some time, nearly filling the bottle; at others it sinks to the bottom directly it is poured in. I find that Howards' is the lighter powder of the two. Would it not be better if it was always made of the same density? I have had mixtures brought back stating that previously the bottle contained only a quarter of the amount of powder to what the other did. The following is the mixture which was complained of, and as we make a bottle every week, I have been able to notice the difference:—

Bism. subcarb.	℥ij.
Sodæ bicarb.	ʒss.
Tr. nucis vom.	ʒj.
Syrup. zingib.	℥iv.
Aquam ad	℥viij.

M.

Yours truly,
MINOR. (70/35.)

[This is a hint which the manufacturers might take. There ought to be no difficulty in always producing a powder of an approximate standard density.—ED.]

Selling Chloride of Lime.

SIR,—After perusing a letter in your paper, a few weeks ago, headed "An Assistant's Dinner," or something of that sort, I came to the conclusion that the man who wrote it was most certainly born to play a better part in the world's play than selling pennyworths of lime; for it was exceedingly funny, well written, and, I am sure, truly represented many an unfortunate apprentice's and assistant's position.

The remedy for obviating the use of wooden spades, suggested by one of your correspondents—not a novelty by any means, for that was the nasty moist implement I had to handle eighteen years ago—is easily effected by purchasing this old smell-killer, as yet unrivalled, in packet form. And if chemists were to sell this stuff in packets, they would then not be tempted to charge quite so high a percentage of profit for handling the article as they do now; for they would not be troubled with chloride hands, and so save expense in soap and time in washing. This would be an important point gained by the chemist, and materially to the advantage of the customer, as I can vouch for from my experience of the last week, when my chemist charged me 2*d.* for two ounces of chloride of lime.

Whatever may be thought of the practice of obtaining large profits on common drugs, such as may be sold by the unskilled, there is little doubt but that a mistake exists here. It is a principle that admits of comparison with the grocer and others, and tends to prejudice the public mind against the pharmacist as regards economy. I would say let go everything, combine forces (by congresses, if necessary), and make capital out of dispensing and poisons, for which the chemist's training and studies are specially intended. The latest from Russia is that the State contemplates taking over all the pharmacies of the country, and it would be well in the interests of chemistry were the English Government, or a limited company, to follow the example contemplated by Russia. Under one management, there would then be little difficulty in formulating a scheme which would so divide matters that the grocer takes the rough work and unprofitable, and the chemist makes capital out of dispensing and the protection accorded him by law in respect to poisons.

I am, Sir,
Yours faithfully,
LIQUOR CARNIS.

The Relative Weights of Toilet-soaps.

SIR,—The sixpenny cake of Pears' soap weighs 3¼ oz.; the shilling cake weighs 3½ oz. The sixpenny "Vinolia" soap weighs 3⅛ oz; the tenpenny ditto weighs 3⅝ oz. The "Vestal Vinolia" (half-crown size) weighs 5⅛ oz. Wright's sixpenny coal-tar soap weighs 3⅜ oz.; the shilling size weighs 4⅝ oz. Can you, or any of your readers, tell me why there is so little difference in the weights of the differently-priced cakes of the same soap? I weighed the above-mentioned out of curiosity the other day. If all the soap turned out by a

house is of the "best and purest" kind, then the difference in price cannot be due to the difference in quality, and surely the extra perfume cannot make up the price.

I am, &c.,
IGNOR. (70/56.)

A Poison-guard.

SIR,—I should be much obliged to you for your opinion of the enclosed invention. Seeing so many cases of accidental poisoning in THE CHEMIST AND DRUGGIST through lifting wrong bottles in the dark, it appears to me if chemists were to adopt this it would be the means of saving a few lives. The enclosed is a rough miniature, and is meant to fix on neck of bottle, and to open the bottle the top of poison-cap would only need pushing aside, as you no doubt will see from its construction. I am, Sir,

Yours faithfully,
R. M. (71/42.)

[The invention sent is an indiarubber ring fitting round the neck of the bottle, with a loop attached crossing the top of the stopper. We have always urged that chemists should regard it as a sacred duty to use what are, according to their judgment, the best precautions against the possibility of mistakes with poisons. "R. M.'s" arrangement is good; but it is no better, we think, than the method which some chemists adopt of tying a leather cap over bottles containing poisonous or dangerous medicines. On the whole, we know of no better plan than this for bottles on the shelves. There should be, besides, a locked-up poison-cupboard for deadly alkaloids, &c.—ED. *C. & D.*]

Keeping Price-lists.

77/41. *Price Lists* asks for suggestions for a handy method of keeping and arranging trade price-lists so as to be easily found when wanted.

What is the matter with a couple of CHEMIST AND DRUGGIST reading-cases? Each of these contains 13 elastics; twice 13 is 26, which corresponds with the number of the letters of the alphabet. We sell these reading-cases at 1*s.* each, or by parcel post 1*s.* 3*d.* for one, 2*s.* 3*d.* for two. If the use of these became general, firms would soon recognise the size as the proper one to adopt if they want to have their circulars preserved. This is our suggestion. Has anybody got a better?

DISPENSING NOTES.

The opinions of practical readers are invited on subjects discussed under this heading.

A Gallic-acid Mixture.

SIR,—Could any of your readers inform me the proper way to make the following, as I have a difficulty in always dispensing it alike? At times the precipitate of gallate is flocculent, at other times crystalline, according to the amount of warm water used.

I find the mixture which suits the patient best is made by using 2 oz. of warm aq. menth. pip., and directly the acid. gallic. is dissolved to pour into the cold bottle; then make a mixture with the other ingredients, and add to this. What is the correct way?

Ferri sulph.	gr. xxxii.
Acid. gallic.	ʒij.
Acid. sulph. dil...	ʒij.
Glycerin...	℥iv.
Aq. menth. pip. ad	℥viij.

M. Ft. mist. ʒj. ter die.

Yours truly,
MINOR. (70/35.)

[Neither way is correct. Dissolve the sulphate in the dilute acid and 4 oz. of the peppermint-water. To this add the glycerine. Rub the gallic acid to fine powder, suspend it in the remainder of the water, and mix with the iron solution. Hot water is objectionable (*vide* "The Art of Dispensing," page 125), and it is very bad pharmacy to heat peppermint-water.—ED.]

71/55. *Chiswick.* Ichthyol Pills.—Ammonium ichthyolate, the salt generally employed as ichthyol, is least suitable for making into pills. The potassium, sodium, and magnesium salts are better. See the note by Mr. Wyatt in our issue of April 11, p. 498.

Iron Pills.

SIR,—

Ferri sulph.	gr. v.
Ext. gent.	q. s. ft. pil. j.

One pill after each meal daily for a week.
Two pills " " next "
Three " " " "
Four " " " "
and then decrease in same proportion.
Aperient pills of aloes (1½ gr.) to be taken as well, as directed.

I had the above prescription (which was a copy) to dispense yesterday, and, from what I could learn, when dispensed at Army and Navy Stores the pills were about 4 grs. Would you kindly tell me—(1) Should ferri sulph. exsic. 3 grs., or ferri sulph. granul. 5 grs. be used; (2) should the pills be varnished before silvering; and (3) is not 60 grs. a day an unusually large dose? The lady said she had given it to a great number of friends for anæmia.

Yours truly,
W. G. S. (72/63.)

[The recently-prepared dried sulphate may be used in order to get a small pill. Varnish with ethereal solution of tolu. Large doses of sulphate of iron are unusual, but ferrous carbonate is given in equally large doses, and apparently does no harm, but a chemist would not be justified in encouraging the use of such doses without a physician's advice in each case.]

72/11. *Charnet.*—There is no way to dispense the hair-wash so that it may be clear and usable other than reducing the amount of quinine to 4 grs. This is all that the water will take up, and it would be waste to use more.

69/24. *G. W. J.*—Use hydrochlorate of cocaine.

63/39. *Syrupus.*—You omit to say how much ol. eucalypti you wish to make into pills. With essential oils generally the plan is to stiffen the oil with half its weight of white wax, then mass with phosphate of lime and a little soft soap.

52/55. *Pax cum Honore.*—Magnesia is given as an excipient in your case under a wrong impression. It is used for copaiba balsam, but not for the essential oil. Adopt the plan recommended to "Syrupus," but use 10 grains of magnesia as well as phosphate of lime.

LEGAL QUERIES.

76/34. *Statim.*—There is no law which prevents anybody *prescribing* poisons, and there is no exemption in the Pharmacy Act as regards selling them to dentists as such.

77/8. *Nine Years' Subscriber.*—We do not think you would be eligible for the concession under the Dentists Act, unless you can produce indentures or otherwise prove pupilage commencing before 1878. State all facts to the Registrar of the General Medical Council, 299 Oxford Street, London.

77/35. *H. F.*—There is no law requiring anyone to pass his Preliminary examination before being apprenticed to a chemist and druggist. It is not likely that there will be such a law, though power may be obtained to require that a period of several years must elapse between the Preliminary and the qualifying examination.

77/71. *Stamp.*—We discussed the law of seidlitz-powders fully in this journal of June 20. The addition of the word "mild" on the label would, no doubt, furnish a defence in case of a prosecution, which might or might not be sufficient. If you used the words, "milder than British Pharmacopœia seidlitz-powders," the defence would be, we should say, complete.

78/50. *Devon.*—The paraffin oil usually burned in lamps is not "petroleum to which the Act applies." Ask the firm you buy from to guarantee it.

76/12. *Ezekiel.*—Neither the Pharmacy Act nor the Dentists Act extends to the Isle of Man, but we cannot be certain that there is no local Act limiting the right of using these titles.

76/30. *Dens.*—The only course for you is to pass the Medical Preliminary examination, and be registered as a dental student. There is no means of getting over that. For the fact that you were not aware that you should have registered long ago there is no provision in the Dentists Act. It is a pity that you have so much experience, and that it should be of no use to you for the purpose of registration; but there is the law, and nobody may go beyond that.

MISCELLANEOUS INQUIRIES.

Correspondents who ask replies to be inserted "this week" or "next week" are reminded that we do not guarantee replies, and that their insertion depends upon the space at our disposal for such matters. It is generally impossible for us to find room for queries the same week they are received.

A large number of correspondents ask us for formulæ and other information already published in this journal. It is not fair to more careful readers that we should frequently repeat such information, and so long as the back numbers containing the formulæ or replies required are in print we must decline to do so. Back numbers of our weekly issue can be obtained from the publisher at 4d. each.

62/43. *Tommy.*—The only persons allowed to compete for the **Bell Scholarships** are apprentices or students of the Pharmaceutical Society of Great Britain, not less than 20 nor more than 22 years of age, who have passed not less than three years in the pharmacy of a registered pharmaceutical chemist or chemist and druggist. It does not matter where the time has been put in—Timbuctoo, if that were possible—but the other conditions are insisted on, and we are afraid that you are out of it.

62/42. *W. H. B.*—**Dental Students.**—The conditions for registration as a dental student are the same as for medical student. The new regulations will, we presume, also apply to dentistry. So far as you are concerned, the course we should advise you to adopt is this: Complete the Preliminary examination (which you can do by arrangement with the College of Preceptors) and get your indentures with a dentist completed. Then you are eligible to be registered as a dental student by the registrar of the General Medical Council. All this should be done before December 31, 1891. You can go to a dental college any time you like thereafter, and the study will be counted as part of your curriculum; it would not if taken before registration as dental student. The curriculum is for four years, one year of the apprenticeship counting as one year of the curriculum.

156/91. *Thistle.*—**To Recover Morphine** from liq morphinæ hypoderm. dilute the liquor well with water, and add solution of soda until faintly alkaline, collect the precipitate, and wash carefully with distilled water. If you wish to make this into liq. morph. hydrochlor., you may consider that each fluid ounce of the hypodermic liquor contains enough morphia to make 10 fl. oz. of liq. morph. hydrochlor. You therefore take the moist precipitate, suspend it in warm water, and add dilute hydrochloric acid until it is dissolved, and the solution is distinctly acid, then add the B.P. amount of spirit, and make up to the required volume with water.

62/39. *T. Parr.*—You cannot make any preparation of verdigris yellow.

62/37. *Acetic.*—An aqueous solution of oxalic acid is as good a thing as you can get for cleaning the brass work of harness.

62/28. *Soda* (Glasgow) is not a specific enough name for a person wanting "exhaustive" information.

62/2 *An Old Subscriber* (Sheffield).—The information required regarding "halviva" was given on June 20 by a correspondent. To that we may add that it is a proprietary article. The odour of whale oil cannot be removed without destroying the general characters of the oil.

61/26. *D. M.*—See reply 45/78 in last issue.

61/38. *S. N. J.* **Analytical Reports.**—We cannot undertake to chemically examine any substances submitted to us, unless the following particulars are supplied by correspondents who send them:—

1. Name and nature of the article as far as known.
2. Purpose for which it is used.
3. If an article of retail sale, how put up, price, &c.
4. By whom made.

We, of course, reserve the right to decide whether an article is worth operating upon, and correspondents must bear in mind that when a thing is of personal interest only, it is unsuited for treatment under this heading. We have to consider our subscribers as a whole in replies to correspondents, otherwise the pages would be as uninteresting as possible. This note is addressed to correspondents generally, and not *S. N. J.* particularly.

61/53. *Lithion Quelle.*—(1) Rhamnaceæ. (2) Liq. ferri perchlor. serves as a substitute for ferric chloride in ordinary analytical practice. (3) You are not at all clear regarding the examination of insoluble phosphates, and your best plan would be to refer to a work on qualitative inorganic analysis.

Snake-root.—I am glad this question has been raised, because I used to sell serpentary for snake-root; but latterly, having got the idea that senega-root was indicated, I now sell that root whenever snake-root is asked for. You will find in Rennie's Supplement, 1833, that senega-root is called "rattlesnake-root," and its medicinal properties are somewhat similar to those of serpentary.

Manchester, July 7. D. WALTON.

Information Wanted.

[*Replies to the following requests are solicited by correspondents of* THE CHEMIST AND DRUGGIST.]

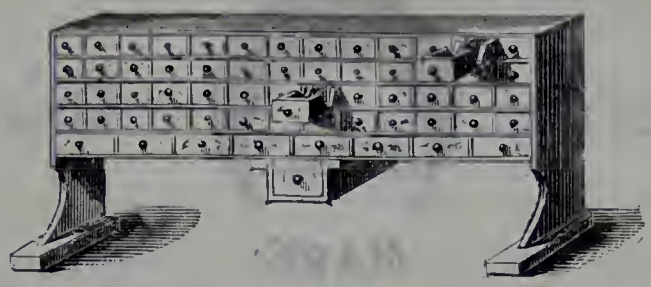
76/6 Where to obtain the transparent glaze used for covering electroplated goods, to prevent tarnish; or how to make it.

76/6. The best and cheapest house or firm for trade-blocks—stereos or electros (for trade and counter lists)—such as feeding-bottles, menthols, &c.

74/65. Borax and bird-lime in large quantities; where obtainable?

THE NEW DRUGGIST'S LABEL CABINET

(PATENTED).



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The Editor of THE CHEMIST AND DRUGGIST says:—"A very neat, useful article. really well made, and wonderful value for money."

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VINOLIA SOAP.—Floral, 6*d.*; Balsamic, 8*d.*; Otto Toilet, 10*d.*; and Vestal, 2*s.* 6*d.* per tablet.
VINOLIA SHAVING SOAP.—1*s.*, 1*s.* 6*d.*, and 2*s.* 6*d.* per stick. Flat cakes 2*s.*
VINOLIA (a Plastic Emollient Cream), 1*s.* 9*d.*, 3*s.* 6*d.*, and 6*s.* per box.
VINOLIA POWDER (for Toilet, Nursery, &c.), 1*s.* 9*d.*, 3*s.* 6*d.* and 6*s.* per box.
VINOLIA DENTIFRICE.—English, 2*s* 6*d.*; American, 1*s.* 6*d.*
VINOLIA SHAVING FOAM, in collapsible tubes, 1*s.* 6*d.*
LYPSYL (a coralline emollient for the lips), 1*s.* per box.

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BICARBONATE OF SODA,

REFINED AND RECRYSTALLIZED.

PURE AND CHEAP:

ANALYSIS.

Bicarbonate of Soda	97·20
Mono Carbonate of Soda	1·90
Sulphate of Soda	trace
Chloride of Sodium	·035
Moisture	·82
Insoluble	nil

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We are now sending to Physicians in every town of importance throughout England, Ireland, Scotland, and Wales a green-covered box containing midget bottles and boxes of each of the subjoined Preparations of Raw-beef Juice. We anticipate some inquiry will follow in consequence; we therefore avail ourselves of the easy medium offered us by your old and esteemed friend THE CHEMIST AND DRUGGIST of telling you what we are about, that you may be prepared to fire the bullets we are moulding; and, if any registered Chemist in business wants a sample of any of our Preparations, let him declare it!

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W. SHEPPERSON, *MANAGING DIRECTOR.*

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FRESH BEEF JUICE

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"A Nourishing Fluid, consisting of the Uncooked Juice of Meat or Muscle-plasma, permanently preserved by the addition of a definite quantity of a Carbohydrate. A Valuable Food and Tonic for Infants and Invalids."—*The British Medical Journal.*

IN BOTTLES AT 2s. & 3s. 6D.

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NUTRITIOUS AS WELL AS STIMULATING.

Contains Two-thirds or Sixty-six per cent (66%) of Caffyn's Liquor Carnis (a solution of the Uncooked Juice of Beef) in combination with Malt Extract and Cocoa.

SUPPLIED IN 2s. 6D. BOTTLES.

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FOR RECTAL FEEDING.

The nutritive and stimulating properties of Liquor Carnis (Caffyn)—Raw-Meat-Juice in solution—Minims 90 (ninety drops) contained in each suppository.)

PRICE 2s. 6D. PER BOX. CHILDREN'S 2 -

JELLY-CARNIS (CAFFYN)

CONCENTRATED BEEF TEA.

Contains sixty-six per cent. (66%) of Caffyn's Liquor Carnis, and possesses all the stimulating substances characteristic of Liebig's Extract of Beef as well as the soluble Albuminoid constituents of Meat present in Raw-beef-juice.

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CASCARA SAGRADA CAPSULES.

Each Capsule equal to ¼, ½, or 1 teaspoonful of Fluid Extract of Cascara Sagrada. They can also be had in combination with ½ or 1 grain of EUONYMIN. In Boxes at 1/6 and 2/6; 14/- and 24/- per dozen. (Also in Bulk.)

BLAUD'S PILL CAPSULES.

In 3 sizes, equivalent respectively to 1, 2, or 3 Blaud's Pills.

These Capsules differ from all others, and have advantages which no others possess. They are made from Pure Unoxidised Carbonate of Iron by a special process. They are so prepared that, while they retain indefinitely the full efficacy of fresh Blaud's Pills, they have no tendency to become hard and insoluble by keeping, as the pills often do. They are small in size. Owing to the special process adopted by D., F. & Co., the 3-pill Capsule is hardly larger than a single Blaud's Pill. They are soft and flexible, and much more easily swallowed than pills.

They can be had in combination with Arsenic, Nux Vomica, &c. In Boxes at 1/-, 1/9, and 2/6; 8/-, 15/-, and 22/- per dozen. (Also in Bulk.)

EASTON'S SYRUP CAPSULES.

Each Capsule equivalent to 20, 30, or 60 minims of Easton's Syrup.

In Boxes at 1/-, 1/9, and 2/6; 10/-, 17/-, and 24/- per dozen. (Also in Bulk.)

SYRUP. HYPOPHOS. COMP. (Duncan's.)

Some time since we had several samples of well-known SYRUP. HYPOPHOS. COMP. analysed by Mr. D. B. DOTT, F.R.S.E., F.I.C., Ph.C., and in no one case did he find so large a proportion of the active constituents as is found in our preparation by a precisely similar analysis—which analysis is an absolute proof that the proportions of the different ingredients which we state are in our Syrup ARE ACTUALLY PRESENT. We, therefore, submit that from the use of our Syrup the best results may be confidently anticipated.

In proof of our statements we subjoin the report of Analysis referred to.

NOTE.—Our Syrup will darken in colour by lengthened keeping; and so must every Syrup which contains a similar proportion of FERROUS Hypophosphite.

"*Analysis of SYRUP. HYPOPHOS. COMP. (grains per drachm).*"

—	Duncan's	No. 1	No. 2	No. 3	No. 4
Hypophosphite of Quinine ..	·25	·14	·11	·69	·12
" " Iron	·77	·72	·10	·23	·15
" " Manganese	·27	·22	·00	·16	·08
" " Calcium....	1·04	·00	·33	·01	·15
" " Potassium..	1·00	·68	1·48	·24	·29
" " Sodium	1·53	1·45	1·54	·29	·29
The quantity of STRYCHNINE present was not determined. Our Syrup contains $\frac{1}{100}$ grain in each fluid drachm.					

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Prepared only and sold by the Proprietor, THOMAS BEECHAM, ST. HELENS, LANCASHIRE, ENGLAND, in boxes at 1s. 1½d. and 2s. 9d. each, with full instructions for use.

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Manufacturing Chemists and Drug Grinders.

WAREHOUSES, LABORATORIES, & DRUG MILLS,

COVENTRY.

BIRMINGHAM BRANCH HOUSE: 52 MOOR STREET.

SEASON 1891.

We are now booking orders for this Season's Goods of our own manufacture.

Aq. Flor. Sambuci Trip.
Aq. Flor. Sambuci Dest.
Ext. Belladonnæ Nov., P.B.
Ext. Conii Nov., P.B.
Ext. Hyoscyami Bien., P.B.
Fol. Hyoscyami Bien., P.B.
Succus Belladonnæ, P.B.
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Succus Hyoscyami, P.B.
Syr. Rhœados, P.B., etc., etc.

GRANULAR EFFERVESCENT CITRATES (all Grades).

CHLORATED SALINE.

RASPBERRY, LEMON, AND LIME FRUIT CITRATES,

Bottled or in Bulk Tins (Quotations on application).

GENUINE FRUIT SYRUPS.

SMITH & SONS

WHOLESALE DRUGGISTS AND MANUFACTURING CHEMISTS,

44, 46, and 48 MAGDALEN STREET, NORWICH.

PURE CHEMICALS. NEW REMEDIES.

MANUFACTURERS OF ALL

PHARMACEUTICAL PREPARATIONS.

IMPORTERS OF ESS. LIMONIS SUPER AND ALL ESSENTIAL OILS,

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DEALERS IN DRUGGISTS' SUNDRIES AND SURGICAL APPLIANCES.

PRICES CURRENT ON APPLICATION. TELEGRAMS—"SMITH NORWICH."

LOFTHOUSE & SALTMER,

MANUFACTURING CHEMISTS, WHOLESALE AND EXPORT **DRUG MERCHANTS,**

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Manufacturers of all Pharmaceutical Preparations on the best and most improved principles. Quotations on Application

DEALERS IN PURE CHEMICALS

For Medicinal, Photographic, and Commercial purposes.

Importers of Cod Liver, Castor, and Olive Oils; Extra Super Essence of Lemon and Bergamot, Otto de Rose, and all Essential Oils; Valentia Saffron; Vanillas Fruit Essence; Carmine; Aniline Dyes; Bees' Wax, &c., &c.

Special Agents for Sicilian Sublimed Sulphur in 2-cwt. bags, and Rolled Sulphur in 3-cwt. casks. Most Favourable Quotations can be given to large Wholesale Dealers on application.

VOGT'S FRUIT EXTRACTS, from FRESH FRUIT. The best for Summer Drinks—Raspberry, Strawberry, Lemon, Orange, Cherry, Black Currant and Coffee, 5*s*. lb. net.

VOGT'S CITRATE OF MAGNESIA.—Four qualities, 8*d*., 10*d*., 1*s*., and 1*s*. 2*d*. lb. net.

VOGT'S INSECT POWDER.—Genuine Dalmatian from Closed Flowers, 1*s*. 3*d*. lb.; 100*s*. cwt. keg; special quality from Mountain Flowers, 1*s*. 7*d*. lb.

VOGT'S OLD-FASHIONED SCENTS.—The Popular Favourites. You should stock them—"The Scent of the Moorland," "The Scent of the Hayfields," "The Scent of the Lilies.'

VOGT'S DRUGS, PERFUMERY, CHEMICALS, & ESSENTIAL OILS ARE ALWAYS GOOD VALUE.

PRICE LISTS FREE. **G. VOGT & CO.,** 19 Laurence Pountney Lane, LONDON, E.C. Telegrams: "ALSACE LONDON."

MAGNESIA

FOR PHARMACEUTICAL AND MANUFACTURING PURPOSES

CARBONATE, in BLOCK, POWDER, or WEIGHED BLOCKS.

CALCINED & PURE HYDRATE OF MAGNESIA.

PURE FLUID MAGNESIA.

ONE OF THE BEST BRANDS MADE.

For Prices and Particulars apply to

THE WASHINGTON CHEMICAL CO., WASHINGTON, COUNTY DURHAM, ENGLAND.

LLOYD'S A1 COMPRESSED TABLETS

OF PURE DRUGS.

COMPLETELY DISINTEGRATING.

THE rapid growth of our **Pearl-coated Pill** and **Compressed Tablet** Trade since the opening of our premises at the commencement of this year has compelled us not only to double our staff of men, but also to fix a powerful Engine for driving all our Machinery.

We are now, therefore, in a position to compete on equal terms with the oldest established houses, and, having the advantage of all the latest improvements in our Machinery, we can turn out both Pills and Tablets in the most perfect condition.

NET PRICES.

	1 lb.	7 lb.
Chlorate of Potash Tablets	**1/3**	**1/0**
Chlorate of Potash and Borax Tablets ...	**1/3**	**1/0**
Compound Sulphur Tablets	**1/9**	**1/6**
Soda Mints Tablets	**1/3**	**1/0**

IN TINS FREE.

Special Quotations for Tablets in 6d. and 1s. Boxes or Bottles,

WITH CHEMIST'S NAME ON LABELS IF DESIRED.

REGISTERED TRADE MARK.

T. HOWARD LLOYD & CO.

HIGH STREET and TOWNHALL LANE,

LEICESTER.

PRINCIPAL—Mr. T. HOWARD LLOYD, 18 years Partner in the Firm of JOHN RICHARDSON & CO.

IMPORTANT NOTICE TO THE TRADE.

Chemists will find it greatly to their advantage to sell

Fortitur Tonic, bottles 2/9 & 4/6
Nourmahal Balsamum, 1/6
,, Skin Ointment, 1/1½
,, Bath Sachets, 1/3
,, Chilblain Paste, 1/1½
Nechessor's Embrocation, 1/1½ and 2/9
Hughes & Hughes' Bromodyne, 1/1½
Hughes & Hughes' Nerve Tonic Pills, 1/1½
Hughes & Hughes' Digestive Antibilious Pills, 1/1½

London Agents, Newbery, Hovenden, Barclay, Sanger, Maoe & Hnldane, &c.

HUGHES & HUGHES, of 9a London Road & 14 Grenville Place, Brighton, Sussex, undertake to give

£5

In Cash, on every completed TWENTY-FIVE POUNDS' WORTH Purchased of their specialities, from October, 1890, to November, 1891, inclusive.

To gain this £5 bonus it is not necessary that the Goods should be ordered in large quantities; from one dozen can be sent, either of one kind or mixed, to suit requirements.

The Receipts for each Order must be carefully kept, and when they reach £25 send them to HUGHES & HUGHES, who will remit £5 in return.

This Competition gives you no trouble. All you have to do is to place really good articles before your customers. No finer remedy can be recommended than **Fortitur Tonic** (see Testimonials and Press Notices), and all our Specialities are the most desirable for you to stock.

The object of giving this large bonus is to make these Specialities as widely known as possible.

By competing for this bonus you lose nothing, as no extra charge is made. Our prices are exactly the same whether you compete or not, and allow a good profit, so that you may as well save up your receipts and see how much you gain in the year.

COMMENCE AT ONCE.

If a Chemist sells £100 worth a week, he secures £20 on each hundred; if he can only sell that quantity in the year, he still gains £20.

Do not wait till the end of the year, but as soon as you have the required receipts, send them up for £5, and begin to collect another £5.

IMPORTANT TESTIMONIAL FROM A PHYSICIAN—

I have carefully looked over the prescription upon which you desire my opinion. I find it to include valuable ingredients, very wisely amalgamated. I consider it a form which any physician would approve of who desired to avail himself of those remedies.

To the Proprietors of "Fortitur Tonic."

GENERAL LINIMENT.

INGREDIENTS:

Soap Liniment, Camphor, Ammonia, Opium Arnica, Belladonna, Tincture of Capsicum, and Oil of Rosemary.

A *particularly* excellent Family Remedy. It has the benefit of five years' experience, with quite a remarkable success in consequence of its efficacy.

STYLE:

In 2-oz., 4-oz., and 6-oz. superior Amber-coloured Stoppered Bottles rounded edges.

PRICES:

1/-	..	7/-	.. 6 dozen	6/6
1/6	..	10/6	.. 6 ,,	10/-
2/-	..	13/6	.. 6 ,,	13/-

A smaller (6*d.*) size is put up in 1-oz. bottle, same shape. 3/9 dozen, 6 dozen 3/6.

BRONCHIAL LOZENGES.

Containing Cubebs, Liquorice, Tolu, &c.

Almost identical with the Troches of Cubebs of United States Pharmacopœia.

STYLE: A neat cardboard slide Box, in artistic coloured wrapper, containing about 1½ oz.

PRICE: 6/- doz.; 6 doz., 5/6 doz.

Name and Address free for 6 doz.

EVANS, LESCHER & WEBB, 60 Bartholomew Close, LONDON. | **EVANS, SONS & CO.** LIVERPOOL.

PAPAÏN (Dr. Finkler & Co.)

SOLD IN

Powder, Pills, Tabloids, Lozenges, and Liquor (Acid Glycerine and Papain).

Papain et Iridin, et Bismuth, et Casc. Sagrada.

PAPOID-PEPTON

(A highly-concentrated Pepton obtained by the action of Papaïn on Meat Albumen).

SOLD IN

Powder, Granular Form, and as Pepton-Chocolate and Pepton-Cocoa.

Obtainable through all Wholesale Drug Houses, or direct of

B. KÜHN, 36 St. Mary-at-Hill, LONDON, E.C.

Pamphlets and Prices sent on application.

TIDMAN'S SEA SALT

CAUTION.—The WELL-MERITED and EXTRAORDINARY SUCCESS of this famous remedy for PHYSICAL and NERVOUS DEBILITY has induced WORTHLESS and DARING IMITATIONS. Some are the cheapest and commonest ordinary coarse salt made from inland brine, such as any fishmonger or meat curer will recognise, and utterly useless, probably even injurious, as a substitute for sea bathing. Retailers offering such for sale are liable to prosecution.

TIDMAN'S SEA SALT is really "extracted from the foaming billows," and possesses, free from any drawback whatever, all the curative and medicinal virtues which render sea bathing so beneficial and enjoyable, both in health and sickness, from infancy to old age.

3-lb. Boxes, per dozen, 5/4; 7-lb. Boxes, 10/9; 14-lb. Boxes, 19/9; 28-lb. Boxes, 35/10; Cardboard Packets, each sufficient for a bath, in Boxes of 12 Packets, 12/3 per dozen Boxes; White Linen Bags, each sufficient for a Bath, 3 dozen in a Box, 8/3 per gross.

Discount 5 per cent. for cash with order, or if remitted by 15th of month following that in which goods were supplied. £5 orders and upwards free to any station in England, or direct port of Scotland or Ireland.

19 and 21 WILSON STREET, LONDON, E.C.

BEST
INFLUENZA
PREVENTATIVE.

RE COCA WINE.

COCA WINE (ARMBRECHT)

ORDER SHEET.

_____18 ___

Gentlemen,

Please to send immediately, on receipt of this by _____

				£.	s.	d.
Doz.	Coca Medium ...	...	... retail price 48/- doz.			
"	Coca Burgundy ...	...	... " 48/- "			
"	Coca Malaga ...	...	... " 48/- "			
"	Coca Port ...	...	... " 48/- "			
"	Coca Sherry ...	...	... " 48/- "			
"	Coca Champagne ...	...	Quarts, retail price 56/- "			
"	" ...	...	Pints, " 33/- "			
"	Coca Wine Extract...	...	Bottles, " 42/- "			
"	" ...		" " 66/- "			
"	Coca Lozenges ...	...	Box, retail price 18/- "			
"	" ...	...	Tin, " 30/- "			
"	PAMPHLETS FOR DISTRIBUTION—NO CHARGE.					

To _____

Address _____

Messrs. ARMBRECHT, NELSON & Co.,
2, 3, and 4, Duke Street, and 3, Tom's Court,
Grosvenor Square, W.

P.S. To ensure prompt delivery Cheque must be enclosed with each order.

The usual 25 per cent. off the Retail Price.

BY REQUEST.

SAMPLE FORWARDED, WITH PAMPHLETS, &c.

If order be sent to us direct and remittance enclosed, we offer a discount of 2½ per cent. single dozen (not less) and 5 per cent. on 3-dozen lots; carriage paid England and Wales, and half Scotland and Ireland.

ESTABLISHED 1813.

CLAY, DOD & COMPANY,

WHOLESALE AND EXPORT DRUGGISTS,

52 ST. ANNE STREET, LIVERPOOL.

Address for Telegrams—"CLAY LIVERPOOL." Telephone No. 1192.

Mills and Laboratories—WAKEFIELD STREET.

CLAY'S LAVENDER WATER.

No. 1.—Distilled from English Flowers, 6/- per lb.; Winch., 5/6. No. 2.—Very Choice, 4/3 per lb.; Winch., 3/9.

Manufacturers of all descriptions of

PHARMACEUTICAL PREPARATIONS, COATED TASTELESS PILLS.

POWDERS GROUND IN OWN MILLS. PURITY GUARANTEED.

Samples free on application. Special Quotation to Cash or Large Buyers. Monthly Priced List forwarded on receipt of business card.

BITUMINOL, OR VASELINE SUBSTITUTE.

BARRON, HARVEYS & CO.

GILTSPUR STREET, LONDON, E.C.

Beg to inform their friends and the Trade generally that, having purchased the Business of

BARRON, SQUIRE & CO., BUSH LANE,

and also the various Formulæ of the Special Preparations of

JAMES BASS & SONS, HATTON GARDEN,

they are prepared to execute orders for the same, and pledge themselves to supply them in all their integrity.

Specimens of these Preparations have remained in the Museum of Kew Gardens during 23 years without deterioration.

INTERNATIONAL FISHERIES EXHIBITION, LONDON, 1883.

COD LIVER OIL.

The Only GOLD MEDAL

For British Exhibitors was awarded to

T. J. SMITH,

10 & 11 NORTH CHURCH SIDE, HULL

Importer of Norwegian, Newfoundland, & other varieties.

Low Quotations on application. Delivered at London or Liverpool.

SALICYLIC ACID AND SALICYLATES

PHYSIOLOGICALLY PURE] MANUFACTURED UNDER KOLBE'S PROCESS BY [PHYSIOLOGICALLY PURE

J. HAUFF, FEUERBACH - STUTTGART.

To be obtained from the Sole Agents. N.B.—Stock kept in London. [1]

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Telegrams—"FUERST LONDON." Telephone No. 1050.

HUNYADI JANOS WATER

Per Case of 25 Large Bottles, net cash 22/-

VIN MARIANI

CARBOLIC SMOKE BALL.

CIGARES DE JOY

EAU DE SUEZ

EAU DES CARMES

QUINA LAROCHE

INJECTION BROU

DESICCATED MALT

DUSARTS WINES & SYRUPS

SANTAL MIDY

Hamilton's Linseed Leaves

CHURCHILL'S SYRUPS

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CHEMISTS CAN OBTAIN FROM ALL THE PATENT MEDICINE WAREHOUSEMEN.

THE WHOLESALE AND SHIPPERS SHOULD APPLY TO

WILCOX & CO., 239 Oxford Street
GABRIEL JOZEAU, 49 Haymarket } LONDON

P.S.—Write for Gabriel Jozeau's Catalogue, which is the only complete list of French Medicines in the United Kingdom.

H. P. TRUEFITT'S SPECIALITIES FOR THE HAIR.

Floral Extract, 3/6, 5/-, 10/6, 21/-
Egg Julep, 2/-, 4/-.
CONCENTRATED Egg Julep, 2/6, 5/-, 10/6.
Golden Fluid, 10/6, 21/-.
FUXURON, 1/6.
&c.

Stimulating Lotion, 5/- 10/6.
Astringent and Tonic Lotion, 5/-, 10/6.
Quinine and Arnica Hair Wash, 3/6 5/-, 10/6, 21/-
Arnica Wash 3/6, 5/-, 10/6.
&c.

EUCHRISMA. Combines in one clear Fluid every valuable component both of a Hair Dressing and Wash, 3/6, 5/-, 10/6, 21/-.

EAU RACINE. For renewing the original colour of Grey Hair; superior to all other Restorers, being perfectly simple in its Components. Price 6/-.

An elegant Preparation for the Hair and Beard. Price 2/6, 3/6, 5/-, 10/6, 21/-.

BRILLANTINE.

H. P. TRUEFITT'S TONIC TOOTH BRUSH

(BY ROYAL LETTERS PATENT.)

PRICE ONE SHILLING.

20 & 21 Burlington Arcade; 13 & 14 Old Bond St., London.

This old-established and celebrated preparation for the Teeth attractively put up in the form of Liquid, Powder, and Paste, is now being largely advertised to the public.

THE GENUINE
EAU DE BOTOT
IS THE ONLY DENTIFRICE APPROVED
By the Academy of Medicine of Paris.

	Size	Size	Size
EAU de BOTOT	1/6,	11/9; 2/6, 20/;	5/, 32/9 doz
POWDER	1/,	8/6; 2/6, 17/ doz.	
PASTE	1/,	8/6; 2/6, 17/ „	

Of all Wholesale Houses.

SAMPLE BOXES, Containing Powder, Paste, & Liquid per 8/- doz.

N.B.—See each Article has the Signature— M. P. Botot

OKELL'S ORIGINAL MONA BOUQUET

(First introduced by the late JOSEPH OKELL.)

Registered Trade Mark, "DOUGLAS PIER."

The most popular and best-selling Perfume in the market
RETAIL PRICES, 1/, 1/9, 3/6, 6/, 7/6, 10/6 per Bottle
ALSO 3d. SAMPLE BOTTLES.

Shippers and Wholesale Buyers supplied on the best terms by
THOMAS WEST, 185 & 1187 CHESTER ROAD, STRETFORD, MANCHESTER

DR. ZIEMER'S "Alexandra" Dentifrices.

LOTION.	POWDER.	PASTE.
1/3 at 9/ per doz.	6*d.* at 3/9 per doz.	6*d.* JARS at 3/9 per doz
2/ „ 15/ „	1/ „ 7/6 „	1/ „ 7/6 „
3/6 „ 24/ „	—	1/ TUBES „ 7/6 „
6/6 „ 45/ „	—	2/6 „ 18/ „

Matchless for the Teeth, Gums, and Breath.

GUARANTEED NON-INJURIOUS TO THE ENAMEL.

Show Cards, &c., on application.

THE ALEXANDRA DENTIFRICE DEPOT
143 Cannon Street, London, E.C.

"PRICE'S GLYCERINE"

(Originally introduced in 1855).

Guaranteed free from ARSENIC and all other impurities.

WHOLESALE FROM

PRICE'S PATENT CANDLE CO., LIMITED,

London, Liverpool, and Manchester.

"We have experimentally proved that LISTERINE is a powerful Antiseptic, preventing the development of Bacteria and Decomposition of Vegetable Infusions."—*British Medical Journal*, May 3, 1890.

LISTERINE.

ANTISEPTIC, PROPHYLACTIC, DEODORANT, NON-TOXIC, NON-IRRITANT, NON-ESCHAROTIC, ABSOLUTELY SAFE, AGREEABLE, & CONVENIENT.

FORMULA.—Listerine is the essential antiseptic constituent of Thyme, Eucalyptus, Baptisia, Gaultheria, and Mentha Arvensis, in combination Each Fluid Drachm also contains two grains of refined and purified Benzo-boracic Acid.

DOSE.—Internally: One Teaspoonful three or more times a day (as indicated), either full strength or diluted, as necessary for varied conditions.

LISTERINE is a well-proven antiseptic agent—an antizymotic—especially useful in the management of catarrhal conditions of the mucous membrane, adapted to internal use, and to make and maintain surgical cleanliness—asepsis—in the treatment of all parts of the human body, whether by spray, irrigation, atomization, or simple local application, and therefore characterised by its particular adaptability to the field of

PREVENTIVE MEDICINE——INDIVIDUAL PROPHYLAXIS.

LISTERINE destroys promptly all odours emanating from diseased gums and teeth, and will be found of great value when taken internally in teaspoonful doses, to control the fermentative eructations of dyspepsia, and to disinfect the Mouth, Throat, and Stomach. It is a

PERFECT TOOTH AND MOUTH WASH,

Its value in this direction having been fully determined by the most conservative element of the Dental Profession.

14-OZ. SIZE, UNSTAMPED, FOR DISPENSING ONLY, PER DOZ. 38 -

Samples and further information regarding the products of the LAMBERT PHARMACAL CO. may be had by application to the Company at St. Louis, U.S., or to our

Wholesale Agents for Great Britain and the Colonies, excepting Canada,

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LINT.

GAMGEE TISSUE.
(PATENT ABSORBENT GAUZE AND COTTON WOOL.)

ABSORBENT COTTON WOOL.

ROLL BANDAGES.

ANTISEPTIC DRESSINGS.

ROBINSON & SONS,

COTTON SPINNERS AND MANUFACTURERS OF

SURGEONS' LINTS, COTTON WOOLS.

BANDAGES, & ANTISEPTIC DRESSINGS,

WHEAT BRIDGE MILLS,

NEAR CHESTERFIELD.

TRADE MARK.

Depot—55 Fann Street, Aldersgate Street, London.

Telegrams—
"LINT LIVERPOOL."

LINT.

MANUFACTURERS OF

FLAX, & COTTON, LINTS,

ABSORBENT, AND CARDED

COTTON WOOLS,

ABSORBENT, OPEN WHITE, and GREY

BANDAGES,

SURGEON'S, AND CARBOLIZED

TOW.

THE

LIVERPOOL PATENT LINT CO.,

MARK ST. MILLS,

NETHERFIELD ROAD NORTH,

LIVERPOOL.

R. H. BARRETT'S NEW PATENT BOTTLE.

THE ONLY REALLY PERFECT CAPPED BOTTLE FOR VASELINE, POMADE, DRY POWDERS, &c.

PRICES (in 5-gross Lots):—Fitted with STRONG METAL CAPS, CORK-LINED, in various colours, very attractive in appearance—1 oz., 12/6; 1½ oz., 13/6; 2 oz., 14/6; 3 oz., 16/; 4 oz., 18/ per gross.

Fitted with best BOXWOOD CAPS—1 oz., 15/6; 1½ oz., 16/6; 2 oz., 17/6; 3 oz., 21/6; 4 oz., 24/6 per gross.

Chemists' and Perfumers' Bottles in great variety, Plain or Stoppered. Orders may be sent to the PRINCIPAL WHOLESALE HOUSES.

R. H. BARRETT,

FLINT GLASS BOTTLE WORKS,

THE OVAL, CAMBRIDGE HEATH, LONDON, E.

Telegraphic Address—"FOREFRONT LONDON." [2]

THE MACHINES CAN NOW BE SEEN AT WORK AS UNDER

T. TREMUS TABERNACLE AND CASTLE STREETS LONDON E.C

FULL PARTICULARS ON APPLICATION.

DISPENSING BOTTLES & PHIALS.

REDUCED PRICES.

3 and 4	..	..	6 and 8	..	..	12	..	..	16 ounce.
7/6	..	..	8/6	..	..	12/-	..	..	16/- per gross.
CRYSTAL (BLUE TINTED).									
3 and 4	..	..	6 and 8	..	..	12	..	..	16 ounce.
9	..	..	10/-	..	..	14/-	..	..	18/- per gross.
WHITE PHIALS.									
	..	..	1	..	..	1½	..	..	2 ounce.
3/8	..	..	4/-	..	..	4/9	..	..	5/6 per gross.
WHITE PHIALS (SUPERIOR QUALITY).									
½	..	..	1	..	..	1½	..	..	2 ounce.
4/3	..	..	5/3	..	..	5/9	..	..	6/3 per gross.

I. ISAACS & CO.

GLASS BOTTLE MANUFACTURERS

25 FRANCIS STREET, Tottenham Court Road, LONDON.

BANKERS: LONDON AND WESTMINSTER BANK.

ESTABLISHED UPWARDS OF 50 YEARS.

THE "STIPENDUM" STOPPER CO., LIM.

47 LAMB'S CONDUIT STREET, LONDON, W.C.,

Manufacture the following Specialities—

"STIPENDUM" CORK STOPPERS, in all sizes.
"STIPENDUM" CORK-LINED CAPS, for Pomade Bottles.
"STIPENDUM" SCREW CAPS, for Pomade Bottles.
"STIPENDUM" OPENERS, for Stoppered Aërated Water Bottles.

"STIPENDUM" GREASE-PROOF COVERED POTS

IN TERRA COTTA, CHOCOLATE, AND BLACK.

The Grease-Proof Covered Pots have perfectly fitting lids, are practically unbreakable, and the only article really answering the purpose intended.

The following Analytical Report should be noted by the trade:—

London, *January* 5, 1891.

"We have examined the two covered pots marked November 21, 1890, one containing strong nitrate of mercury ointment, and the other iodine ointment, the object being to discover—(1) Whether the ingredients of which the pots are composed have in any way affected the ointments; (2) Whether the pots have been deteriorated by the action of the ointments.

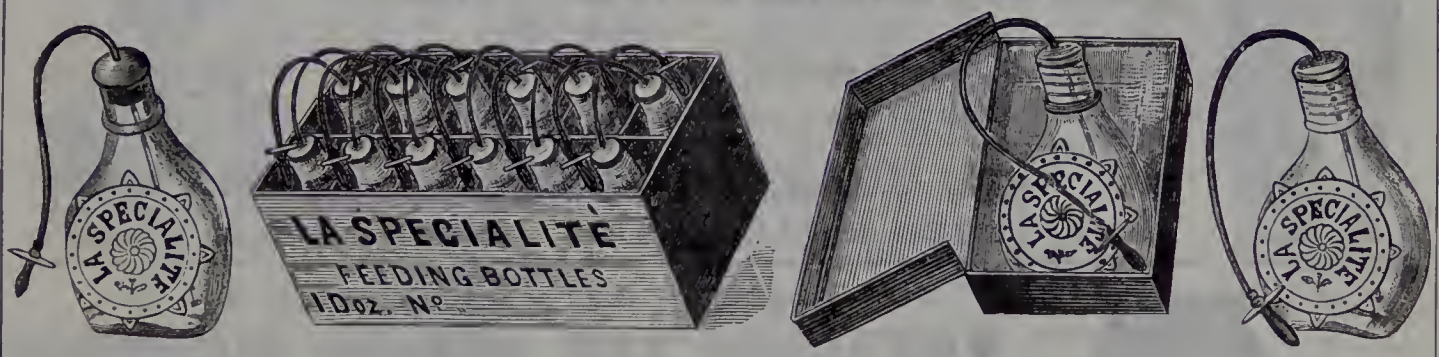
We hereby certify that no trace of any of the ingredients of the pot can be discovered in either of the ointments, and further that the pots themselves were found not to have been acted on at all; and we further consider 'Stipendum' admirably adapted for such pharmaceutical preparations.

Signed, C. T. KINGZETT, F.I.C., F.C.S.
(Ex Vice-President Society of Public Analysts)
R. H. HARLAND, F.I.C. F.C.S.
(Public Analyst).

To be had of all Druggists' Sundriesmen. Wholesale only of the Company.

ATTRACTIVE SERIES.

"LA SPECIALITÉ" FEEDING BOTTLES



No.	Each Bottle in Paper Bag	Per Gross	No.	In Divisioned Wood Boxes of One Doz. each.	Per Gross
	WHITE RUBBERS.			WHITE RUBBERS.	
51	Green Bottle, Boxwood-topped Cork ...	23/-	59	Green Bottle, Boxwood-topped Cork ...	27/6
52	White " " ...	25/-	60	White " " ...	30/-
53	Green " Screw Glass Stopper ...	26/6	61	Green " Screw Glass Stopper ...	31/-
54	White " " ...	28/6	62	White " " ...	33/-
	BLACK RUBBERS.			BLACK RUBBERS.	
55	Green Bottle, Boxwood-topped Cork ...	26/6	63	Green Bottle, Boxwood-topped Cork ...	31/-
56	White " " ...	28/6	64	White " " ...	33/-
57	Green " Screw Glass Stopper ...	30/-	65	Green " Screw Glass Stopper ...	34/6
58	White " " ...	32/-	66	White " " ...	36/6

IN QUANTITIES OF NOT LESS THAN ONE GROSS.

Any of the above fitted Glass Unions at 2s. 6d. per gross extra.

These Bottles have been prepared specially to meet the demand for Cheap Feeding Bottles, attractive in appearance and of good quality, but without any Maker's Name on Bottles or Boxes.

For Bottles fitted in more expensive styles, see our Price List for the International Feeding Bottles (Regd.), of which we are the Sole Makers.

"La Specialité" Bottles can be supplied fitted in the same style, and at the same prices, as any of the Numbers shown on the International Price List if so ordered. All the above Prices are Net Cash, delivered free to Railway or Wharf, London.

A Sample of any kind sent per Parcels Post paid for 6 stamps. Bent Neck Bottles are always sent unless Straight Necks are specially ordered.

SOLE MAKERS:—

BREFFIT'S

(LIMITED).

83 UPPER THAMES STREET, LONDON.

CHEMISTS' AND DRUGGISTS' BOTTLES AND GLASSWARE

(EVERY CLASS AND DESCRIPTION.)

NEW PATENT

AIR-TIGHT CHEMIST JAR.

A slight turn of the knob presses the indiarubber Band against the glass, and renders the vessel absolutely air-tight. The Stopper is made of pure Nickel, of handsome shape.

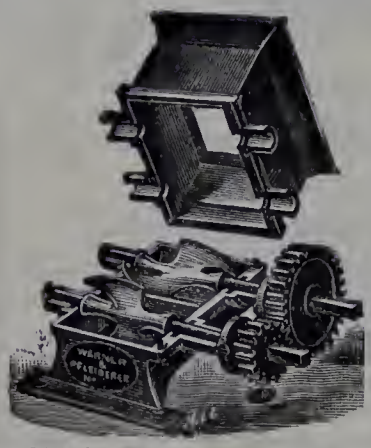
INVALUABLE FOR SHOW BOTTLES, CHEMISTS, CONFECTIONERS, &c.

Samples and Prices of all Chemists' Sundriesmen.

Section of the Nickel Stopper when closed.

C. MELIN, [2]

37 CRUTCHED FRIARS, MARK LANE, E.C.



Size 3, Type I, for 1-lb. Mass.

THE "UNIVERSAL"

KNEADING AND MIXING MACHINE

Pill Cutting, Pill Rounding, Pipers, and all other Machines for

PILL MASS MAKING,

Also for Horse Balls, Tooth Pastes, Ointments, Soaps. Powders, and for general Mixing, Incorporating, Sifting, and Straining.

REPLACES WITH ADVANTAGE ALL OTHER APPLIANCES FOR THESE PURPOSES.

Made in various sizes, to do from ½ lb. up to 1 ton at a time.

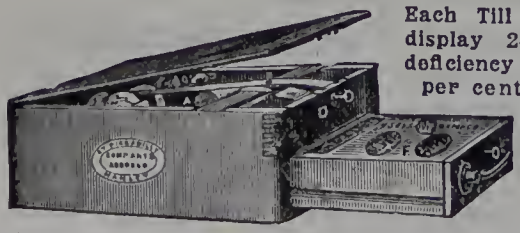
WERNER & PFLEIDERER, 86 Upper Ground St., Blackfriars Bridge. **LONDON, S.E.**

Contractors to the War Offices of all the Great Powers and other Governments.

STOKES'

PATENT CHECK TILL SYSTEM.

A SOUND INVESTMENT.



Each Till has only to display 2*d.* per week deficiency to return 15 per cent. on outlay.

30,000 Sales Checked for **3 SHILLINGS.**

Terms and full particulars on application.

G. R. STOKES & CO., Limited, Hanley, **STAFF.**

G. B. KENT & SONS

Have been awarded the ONLY

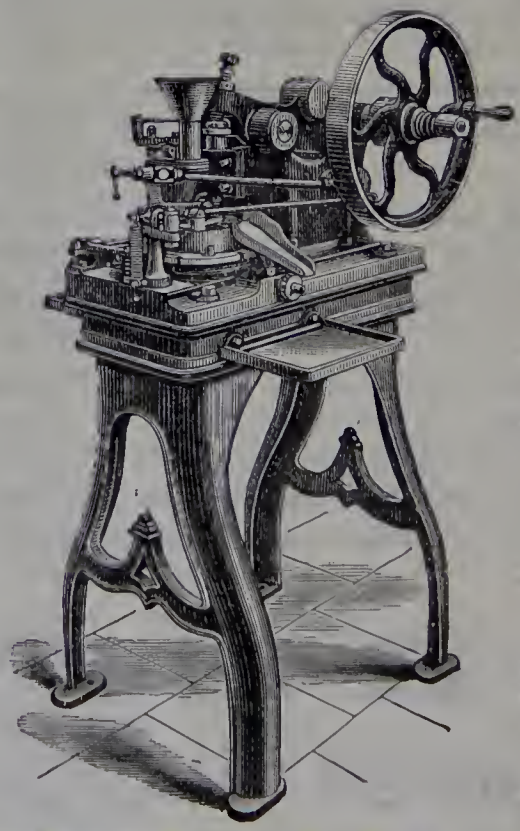
A.D. 1777.

GOLD MEDAL

At the Paris Exhibition, 1889, for

ENGLISH BRUSHES

See pages 169–172 *WINTER ISSUE, January* 31*st*, 1891.



Sole Licensees for Manufacture and Sale of McFerran's Improved Automatic Machinery for Making

COMPRESSED TABLETS

Of various shapes and sizes, from ¼ gr. upwards.

EXPERTS sent to fix and start Machines. Write for particulars and prices.

CAPSULES FOR MOULD MAKING. *Machines Manufactured to Contract for Inventors & Merchants.*

JOHN HOLROYD & CO., LTD.

Engineers, Tool Makers, and Machinists,

TOMLINSON STREET WORKS,

HULME, MANCHESTER.

S. MAW, SON & THOMPSON'S

FEEDING BOTTLES.

Patented in England, December 4, 1879;
Patented in the United States, April 27, 1880.

THE ALEXANDRA. (Earthenware Cap.)

THE EXPORT. (Glass Screw Stopper.)

		White Fittings			Black Fittings		
Alexandra, Wood Top Corks	per doz.	3/-	4/-	—	3/3	4/3	—
Alexandra, Glass Screw Stoppers	,,	—	4/3	—	3/9	4/6	—
Export, Wood Top Corks	,,	2/9	3/9	—	3/-	4/-	—
Export, Glass Screw Stoppers	,,	—	4/3	—	3/9	4/6	—

The following are sent out with Black Fittings unless ordered to the contrary.

		With Ordinary Fittings			With Valve and Patent Fittings		
Alexandra, Earthenware Caps	per doz.	—	7/6	11/-	—	8/6	12/-
Alexandra, Glass Screw Stoppers	,,	—	7/6	11/-	—	8/6	12/-
Export, Earthenware Caps	,,	—	7/-	—	—	8/-	—
Export, Glass Screw Stoppers	,,	—	7/-	—	—	8/-	—

SPECIAL DISCOUNT FOR QUANTITIES.

Not less than £5 worth each or assorted... ... ... 10 per cent. off Invoice and 5 per cent. Cash.
Not less than £10 worth each or assorted... ... ... 15 per cent. off Invoice and 5 per cent. Cash.

Carriage paid to any part of the United Kingdom, Isle of Man, and Channel Islands, at the following discounts:—
Not less than £5 worth each or assorted... ... ... 5 per cent. off Invoice and 5 per cent. Cash.
Not less than £10 worth each or assorted... ... ... 10 per cent. off Invoice and 5 per cent. Cash.

S. MAW, SON & THOMPSON, 7 to 12 ALDERSGATE STREET, LONDON, E.C.

CARBOLIC POWDER

SPECIAL QUOTATIONS FOR 1-TON LOTS AND UPWARDS.

CARBOLIC PINK POWDER, 5/-, 7/6, and 10/- per cwt., in bags or casks.

HANDSOME LARGE DECORATED BLACK AND GOLD TIN BOXES, holding 1½ lb. (usual 1/- size), 4/6 dozen.
Ditto, LARGE SIZE (usual 1/6 size), holding about double quantity, 6/- dozen.

PALE CARBOLIC ACID, 99 per cent. (No. 5), and **CHLORIDE OF LIME** below market prices.
CRUDE CARBOLIC ACID (Brown), 1/- and 1/6 Gallon; also in patent stoppered bottles, labelled.

SANITARY FLUID or CREOSOL (to be used with 100 parts of water, making a *milky fluid*), half usual prices.

All goods delivered free in London or suburbs, or to rail or docks. *THE CHEAPEST HOUSE IN THE TRADE.*

HAMILTON & CO., LIM., WANDSWORTH, LONDON, S.W.

TO THE WEED KILLER TRADE.

For destroying Weeds, Moss, &c., on Garden Walks, Carriage Drives, Roads, &c.

We desire to point out the special advantages which the sale of our "Acme" Weed Killer affords the Trade

1. The "Acme" Weed Killer is used in the gardens and on the estates of the Gentry in nearly every town in the Kingdom.
2. Our Retail Prices are such as will induce a ready sale, and we make no charge for 1 and 2 gallon tins.
3. We pay carriage on six 1-gallon tins, or on four 2 gallon tins, and on 10 gallons in drums and upwards.
4. Drums are charged at cost price. Full price allowed when returned.
5. By taking a 40-gallon cask, and retailing it in small quantities, the Retailer makes upwards of 140 per cent. profit.

Trade Terms on application.

RETAIL PRICES.—In 1 and 2 gallon tins, 2/- per gallon (tins included); in 5-gallon drums, 1/6 per gallon; 10, 15, and 20 gallons, 1/4 per gallon; in 40-gallon casks, 1/2½ per gallon.

TESTIMONIALS received from Mr. HEAD, Crystal Palace; Mr. IRWIN LYNCH, Cambridge Botanic Gardens; and others.

THE "ACME" WEED KILLER, FOR CHEAPNESS & EFFICIENCY, HAS WON FOR ITSELF A NAME THROUGHOUT THE KINGDOM FAR ABOVE ALL OTHERS.

SOLE PROPRIETORS AND MANUFACTURERS—

THE ACME CHEMICAL CO., Tunbridge, Kent; and Carlton Street, Bolton, Lancashire.

BEAURINE DENTIFRICE.

From all Wholesale Houses, or
H. A. ROBERTSHAW & CO.,
HALIFAX, ENGLAND.

BEAURINE DENTIFRICE is in liquid form, and is a substitute for both powder and mouth-wash. It is spoken highly of by both the Medical and Dental professions. BEAURINE is put up in attractive bottles, enclosed in handsome boxes.

Miss FORTESCUE says:—"Sirs,—I have much pleasure in saying that I find your Dentifrice very pleasant, and a refreshing wash for the teeth.—Yours faithfully, M. FORTESCUE."

Miss EASTLAKE says:—"Sirs,—Your Beaurine Dentifrice is delightful.—MARY EASTLAKE."

TERMS—2s. size, 16s. per dozen; 3s. 6d. size, 28s. per dozen, strictly cash—i.e., cash must accompany order.

A special cash discount of 5 per cent. will be allowed off all orders over £1, and of 10 per cent. off all orders over £10. Cheques must be made payable to H. A. ROBERTSHAW & CO., and crossed Lancashire and Yorkshire Bank, Halifax.

GENUINE EMERY, EMERY CLOTH, AND BLACK LEAD.

JOHN OAKEY & SONS,

MANUFACTURERS OF

Glass and Flint Paper, Emery and Glass Cloth; Emery, Black Lead, Emery Wheels Pumice, Putty Powder, Crocus, Urn Powder, Tripoli, Rouge, Plate Powder, Steel Polish Furniture Polish, Knife Boards, Brunswick and Berlin Black, &c.

OAKEY'S WELLINGTON KNIFE POLISH

Prepared expressly for Oakey's and other Knife Boards, Buff Leather Boards, and all the Patent Knife Cleaning Machines, Sold in Canisters with perforated Tops to prevent waste, at 1*d.*, 2*d.*, 3*d.*, 6*d.*, 1*s.*, 2*s.* 6*d.*, and 4*s.* each.

OAKEY'S NON-MERCURIAL SILVERSMITH'S SOAP,

For Cleaning and Polishing Silver, Plate Glass, Marble, &c. Tablets, 6*d.* each.

OAKEY'S "POLYBRILLIANT" (REGISTERED).

A Magic Pomade for Cleaning Brass, Copper, Tin, Pewter, Britannia Metal, &c. Never becomes dry and hard like other Metal Paste. Tins 1*d.*, 2*d.*, 3*d.*, and 6*d.* each.

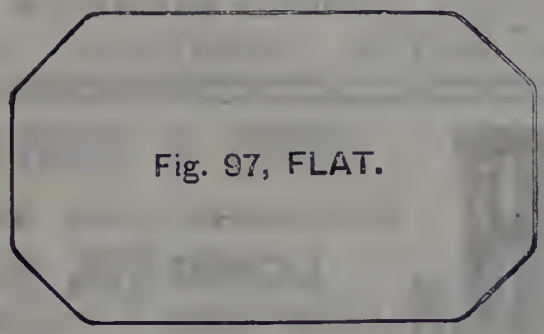
WELLINGTON BLOCK BLACK LEAD,

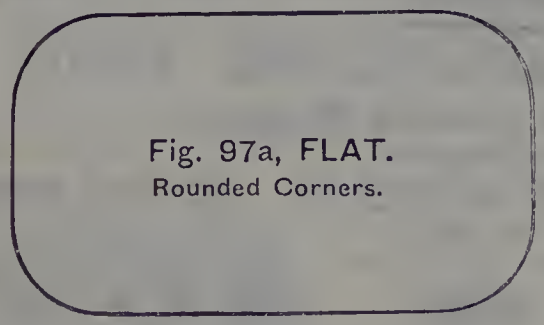
In 1*d.*, 2*d.*, and 4*d.* Blocks, and 1*s.* Boxes.

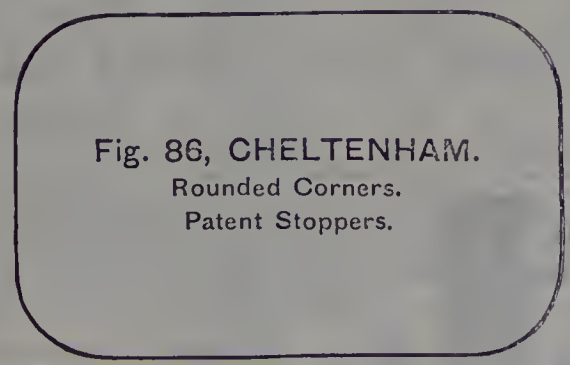
WELLINGTON EMERY & BLACK LEAD MILLS, Westminster Bridge Road, London, S.E.

Highest Award and Prize Medal, Philadelphia Exhibition, 1876; and Boston, 1883. Gold Medal, Crystal Palace, 1884.

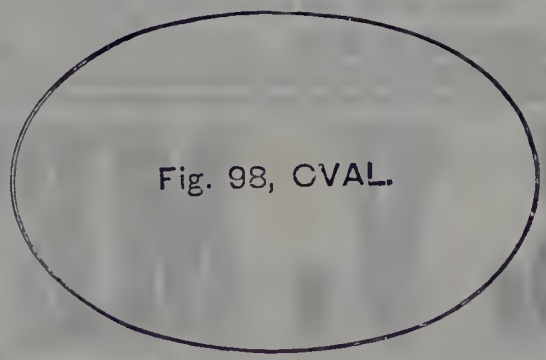
S. MAW, SON & THOMPSON'S
GREEN FLINT
DISPENSING BOTTLES, &c.

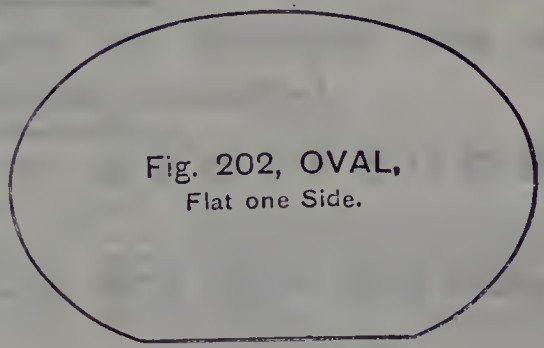


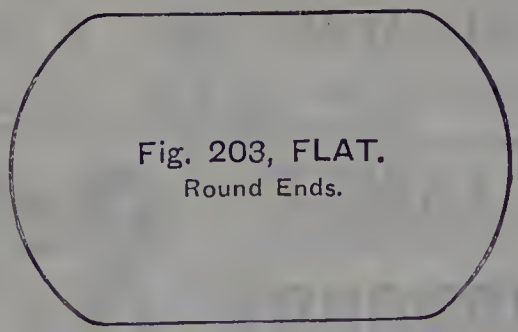




For Prices in Crates, see Quarterly Price-Current, page 44.







For White Flint and all other Bottles, see Quarterly Price-Current, pages 44 to 48.

	2	3	4	6	8	10	12	16	20	Ounce.
Fig. 97	10/–	11/6	11/6	12/9	12/9	20/6	20/6	23/6	30/–	Best, per gross.
"	7/9	8/6	8/6	10/–	10/–	13/3	14/9	20/–	25/6	2nd, "
Fig. 97a	10/–	11/6	11/6	12/9	12/9	...	...	...	...	Best, "
"	8/–	9/–	9/–	10/6	10/6	...	..	...	...	2nd, "
Fig. 98	10/–	11/6	11/6	12/9	12/9	20/6	20/6	23/6	30/–	Best, "
"	7/9	8/6	8/6	10/–	10/–	13/3	14/9	20/–	25/6	2nd, "
Fig. 202	...	...	11/6	12/9	12/9	...	...	...	...	Best, "
Fig. 203	...	11/6	11/6	12/9	12/9	20/6	20/6	23/6	...	Best, "
Fig. 86	...	...	...	20/–	20/–	...	...	...	...	Best, "

USUAL DISCOUNT.

S. MAW, SON & THOMPSON, LONDON.

S.V.R., B.P.

We wish to draw the attention of Chemists to the excellence of the spirit we supply for pharmaceutical purposes. We have devoted great care and attention to this branch and have made it a leading line.

That our efforts in this direction have been appreciated is proved by the number of *unsolicited* testimonials we have received from nearly every town in the country, of which the following is a specimen:—

GENTLEMEN,— The Pharmacy, Morecambe.

Please send 5 gall. 56 o.p. as before. I have pleasure in saying I have always found your spirit answer all tests, which is more than I can say of all I have had from different places, and also to be practically free from odour.

Messrs. Stephen Smith & Co. Yours faithfully, JOSH. N. CUTTS, B.Sc., F.C.S.

In consequence of the increase in the spirit duty our prices will be—

S.V.R. 56 o.p. ... ... 19s. 7d. | Double Distilled, 56 o.p. ... ... 19s. 11d.

CASH WITH ORDER. REDUCTIONS FOR QUANTITIES.

SPECIALITY FOR PERFUMERY.

This pure grain spirit, which has been thrice rectified and filtered through charcoal, is being largely used in making high-class Perfumes.

Price, 20/2, 56 o.p.; 20/8, 60 o.p. Cash with Order. Reductions for Quantities.

STEPHEN SMITH & CO., BOW, LONDON, E.

S. V. METH.

JONES & COMPANY,
COPPERFIELD ROAD
LONDON, E.
LARGEST MAKERS IN THE KINGDOM.

We are prepared to supply METHYLATED SPIRIT in 5-gallon quantities at Lowest Prices.

REDUCTIONS TO LARGE BUYERS.

SAMPLES FREE.

BOORD & SON,

DISTILLERS, FOREIGN WINE AND SPIRIT MERCHANTS, AND METHYLATORS,
ALLHALLOWS' LANE, & BARTHOLOMEW CLOSE, LONDON, E.C.

Quotations for **S.V.R.** Methylated Spirit and Finish on application.

FINEST ORANGE WINE FOR QUININE.

JAMES BURROUGH, S.V.R.

65 o.p. 60 o.p.

CALE ST., CHELSEA, S.W.

and Methylated Spirit

AT LOWEST PRICES.

WRITE FOR QUOTATIONS.

CHEMISTS' SHOP FITTINGS, SHOW CASES, &c.

FOR BEST WORK AT LOW PRICES SEND TO

G. TREBLE & CO., 2 KINGSLAND GREEN, DALSTON, LONDON.

PLANS AND ESTIMATES FREE. SPECIAL ATTENTION PAID TO EXPORT ORDERS.

WEDGWOOD ACID-PROOF

MORTARS AND PESTLES.

ALSO MANUFACTURERS OF

Funnels, Evaporating Pans, Electric Battery Fittings, Bed Pans, Urinals, Medicine Spoons, Physic Cups, Sick Feeders, Bleeding Basins, Medicine Measures, Eye Cups, Inhalers, Nursery Lamps, Wall Tiles, &c.

PRICE LIST ON APPLICATION. SPECIAL QUOTATIONS FOR LARGE ORDERS.

Any Article not bearing the Stamped Trade Mark "WEDGWOOD" is not made by us.

JOSIAH WEDGWOOD & SONS, ETRURIA, STOKE-ON-TRENT.

London Rooms: ST. ANDREW'S BUILDINGS, HOLBORN CIRCUS.

PETROLEUM JELLY,

PARAFFINUM MOLLE B.P.

(PIONEER BRAND) Registered Trade Mark.

Equal to and Cheaper than **VASELINE.**

FOR MEDICAL AND PHARMACEUTICAL PURPOSES.

White, Yellow, Veterinary, and Waterproof. All kinds put up in 1-lb., 5-lb., 7-lb., 14-lb., 28-lb., and 56-lb. Patent Tins, and in 300-lb. Barrels.

Pure Castor Oil, Cod Liver Oil, White Mineral Oil, Best Eating Olive Oil, Pale and Crude Carbolic Acid, Carbolic Powders, Sheep Dip, Benzine 50 per cent. and 90 per cent., Crude and Rectified Spirits of Tar, Stockholm Tar, Camphor Ice, Carbon Candles.

PATENT

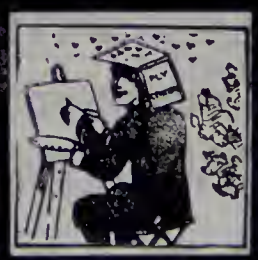
CARBOLIZED PEAT,

THE NEW AND POPULAR DISINFECTING POWDER.

SEND FOR SAMPLES AND PRICES TO

GRINDLEY & CO., Lim., POPLAR, LONDON, E.

(ESTABLISHED 1868.)



It is acknowledged by the Trade that

THE "FLY CEMETERY"

Is the most saleable Fly Paper ever introduced. It is non-poisonous, and the enormous annual increase in the sale of it is positive proof of its popularity. Many Chemists sold more "Fly Cemeteries" last year than they ever did in their lives of all the other fly papers put together.

Samples, Testimonials, and Price on application to

TUNBRIDGE & WRIGHT, READING.

CAUTION!

CALVERT'S CARBOLIC ACID DISINFECTING POWDER AND SOAPS.

It having come to the knowledge of F. C. CALVERT & CO., of Manchester, that various imitations of their products and trade marks have been issued, Messrs. F. C. CALVERT & CO. beg to inform the Trade that perpetual injunctions have been obtained by them in two actions before the High Court of Bombay, and in five cases instituted in the Courts of Victoria (Australia) proceedings have been stayed on payment of heavy damages and consents to perpetual undertakings by the defendants.

Also a perpetual injunction, with costs, has been granted against a firm of English traders by Mr. Justice Kekewich, in the Chancery Division of the High Court of Justice, restraining the use of tins of Carbolic Acid Disinfecting Powder, infringing F. C. CALVERT & CO.'S rights.

NOTICE is hereby given that immediate proceedings will be instituted on behalf of F. C. CALVERT & CO. against any person or persons issuing colourable imitations of their packages or trade marks.

McKENNA & CO.,
17 Basinghall Street, London, E.C., Solicitors to

F. C. CALVERT & CO.

LONDON, 1884.

CARBOLIC DISINFECTANTS

LONDON, 1884.

BEFORE ORDERING ELSEWHERE write for detailed Price Lists and Samples of

POWDERS, ACIDS, FLUIDS, SOAPS, &c.

T

ADAMS, WEBSTER & CO.

Wholesale and Export Disinfectant Manufacturers, Hackney, LONDON, N.E.

CONTRACTORS TO HER MAJESTY'S GOVERNMENT

GOLD MEDAL AWARDED, EDINBURGH INTERNATIONAL EXHIBITION, 1890

No BATH ROOM or CARRIAGE is fully Equipped without

Recommended by Medical Men

RANKIN'S CORK MATS

A REAL COMFORT

Warm, Soft, and Dry, Easily Washed, Clean, and Durable.

They Prevent Chills in Bathing, and keep the feet warm and comfortable. Mr. GLADSTONE pronounces them to be *very useful*, and Lord SALISBURY and many of the Nobility and Gentry now use and appreciate them. They prevent cold feet in Driving, in Church, in the Counting-house, in Stone-floored Apartments. *Numerous testimonials to their usefulness in a great variety of ways.* Sizes: 1 ft. square to 20×45 in. Prices: 3/, 5/, 7/6, and 10/6 each. Special Mats up to 21/ each. Of all leading Chemists and Furnishing Houses.

CAUTION.—Each Genuine Mat branded "Rankin's Cork Mat."

Wholesale terms on application to

WM. RANKIN & SONS, Cork Importers, GLASGOW & LISBON.

Wholesale Chemists' Agents: S. MAW, SON & THOMPSON.

WILEY'S CHEMICAL ESSENCE

FOR

LAMENESS IN HORSES.

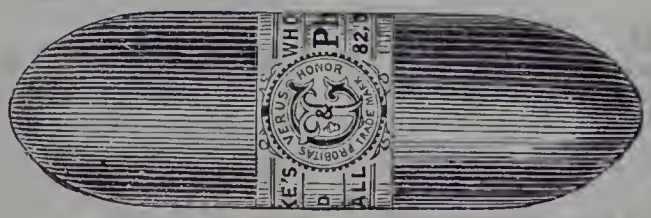
Agents Wanted in every Town. Handbills, with Name and Address, supplied gratis.

50 YEARS' UNBROKEN SUCCESS.

SOLE MAKER & PROPRIETOR, J. ROOKLEDGE, CHEMIST, EASINGWOLD, YORK.

TO BE HAD OF USUAL WHOLESALE HOUSES.

WALKER, TROKE & CO.
WHOLESALE DRUGGISTS,
82 CITY ROAD,
LONDON, E.C.



SOLE MAKERS OF
GABRIEL & TROKES'
GELATINE CAPSULED
HORSEBALLS
Alterative, Condition, Cordial, Cough, Diuretic, Fever, Physic, and Worm Balls.

QUOTATIONS & SAMPLES FREE ON APPLICATION.

PRIZE MEDAL, International Health Exhibition, 1884.

THE NEW PERMANENT

ENGRAVED WINDOW TABLETS

AWARD OF MERIT International Sanitary Exhibition 1881.

IN RUBY, BLUE, AMBER, AND OPAL GLASS.

Send particulars of size, subject matter, and colour, when price for one Tablet and upwards will be sent.
For Proprietary Articles, 100 8×6 Ruby Tablets, £3 15s. 0d.

J. R. CORSAN, THE LONDON SAND-BLAST WORKS, 80 GRAY'S INN ROAD, W.C.

TO PREVENT FRAUD, DEMAND BUSINESS CARD FROM TRAVELLERS.

STAPLES' Patent FLUID NON-POISONOUS SHEEP DIP & CATTLE CLEANSER.

POISONOUS POWDER DIP

(Warranted to remain dry, and not discolour Packages).

WEED DESTROYER.

DISINFECTING FLUID & POWDER.

STAPLES' PATENT SHEEP-DIPPING APPARATUS.

Staples' Patent Dips have an established reputation, and are guaranteed to give satisfaction.

WRITE FOR FREE SAMPLE AND TESTIMONIALS.

STAPLES BROS. & CO., BRIGG, ENGLAND.

ESTABLISHED 1876.

AGENTS WANTED FOR THE SALE OF SMITH'S CELEBRATED WEED KILLER

The most popular and best preparation ever invented for destroying Weeds, Moss, Dandelions, &c., on Garden Walks, Carriage Drives, Stable Yards, Cinder Tennis Courts, Church Paths, Cemetery Walks, Railway Stations, &c. Sold in specially-made packages to prevent accidents, also in large casks. Chemists can be supplied with Labels for Retail purposes.

LIBERAL DISCOUNT TO THE TRADE.

Used in the largest Gardens throughout the Kingdom.

THE ORIGINAL AND ONLY GENUINE. BEWARE OF IMITATIONS.

Send for full particulars to

MARK SMITH, A.P.S., Manufacturing Chemist, LOUTH, LINCOLNSHIRE.

ESTABLISHED 1833.

HORSES.—LIEUT. JAMES'S BLISTER.

CAUTION.

The annexed Label is at the top of every Pot of the *ORIGINAL* and only *GENUINE BLISTER.*

The Messrs. Barclay & Sons, 95 Farringdon Street, London, and Messrs. Raimes & Co., Edinburgh, are now and have been Agents 57 years.

AGENTS:—Sutton & Co., 10 Bow Churchyard; W. Edwards & Son, 157 Queen Victoria Street; Newbery & Son, 37 Newgate Street; Evans, Lescher & Evans, Bartholomew Close; Burgoyne, Burbidges & Co., 16 Coleman Street; Lynch & Co., 171A Aldersgate Street; Southall Brothers and Barclay, Birmingham; R. Hovenden & Sons, 93 & 95 City Road, Finsbury; Sanger & Son, 150 Oxford Street; Millard & Sons, 40 Charterhouse Square; Corry & Soper, Shad Thames; A. A. Campbell, Leadenhall Street, London; Woolley, Sons & Co., 59 Market Street, Manchester; Apothecaries Company, Virginia St., Glasgow; John Thompson, 58 Hanover Street, Liverpool; Boileau & Co., Bride Street, Dublin; McMaster & Co., 121 & 122 Capel Street, Dublin; Clarke & McMullen, Victoria Street, Belfast; D. Galbraith, Londonderry; M. C. Delacre, Pharmacie Anglais, Bruxelles.

And by all Chemists, in Pots, 1/6, 2/9, 5/, 9/, and 16/.

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Advertised in "Bell's Life" 54 years. Beware of Spurious Imitations.

S.V.R. In 40-gallon returnable iron casks, pure tinned, with screw bungs, interchangeable brass taps and spanners for opening. Farina, Dextrin, Glucose, Alcohol absolut., Fusel Oil, Pear Oil, Lime-Soda-Lead-Acetates, Verdigris, Acetic Acid, Wood Naphtha, Charcoal, Ammonia liquid 880-900, anhydrous, Sodium Sulphide Nitrite 96/98 %, Bromides, Iodides, Chloralhydrate, Boracic Acid, Sulphate of Copper, Permanganate of Potash, Ol. Caryophyll., Menth. Pip., Pini, Juniperi.

HUGO LORENZ, 7, 8 Idol Lane, LONDON, E.C.

BURN'S EMBROCATION

The favourite rubbing for Athletes, Cyclists, and Sportsmen.
1/1½, 2/9, and 4/6; 10/, 24/, and 40/ per dozen net.
Of all London Wholesale Houses, or direct from
H. BURN, 7 to 9 Gresham St., LONDON, E.C.
1 doz. 1/1½ sent carriage paid in United Kingdom for P.O. 10/.

PURE LIME JUICE
("IDRIS" BRAND).

This Juice is the first CLEAR pressings of SELECTED FRUIT in specially-designed wooden presses, prepared according to our instructions, and it will be found of a delicious fruity flavour, without the slightest mustiness or bitterness, and fully 25 per cent. stronger in Citric Acid than the usual brands of Lime Juice.

Samples sent free, with quotations for quantities and regular supplies.

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PATENT FOOT-ROT COMPOSITION.
A CERTAIN CURE.

£1,000 was *bond-fidely* offered for this Patent in December, 1890. This proves the value of Learner's Foot-rot Composition above all others.
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May be obtained of the Proprietor or of most London Houses.

JUST WHAT'S WANTED!
SHRINKING entirely PREVENTED.
Lucas "EVICTOR" Soap
Is a SPECIALITY exclusively for Washing WOOLLEN Goods THAT ARE LIABLE TO SHRINK.
Neatly wrapped, full instructions, ¼ Gross Boxes, 18/- Gross Tablets.
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BARTON'S EXTERMINATOR.
ONE SHILLING PER BOX.

Kills and Completely Dries up Rats or Mice. Does Not Harm Dogs or Cats. No Smell from the Dead Ones.

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THROUGH ALL THE WHOLESALE HOUSES.

BERNARD-ESCOFFIER Fils, GRASSE, FOR Oil of Almonds, Perfumed Waters, Lavenders, and all Essential Oils.
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Exterminate your "Lost Siphon" account, Banish the "Deposit" system, and Double your sale of Siphon Waters, by using
THE "PERFECT" SIPHON REGISTER
Write for particulars, and copies on approval, to
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See "Chemist and Druggist," May 9th, pp. 655–6.

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A Large Stock of New and Second-hand Cases, &c., always in hand. No connection with any other house of the same name.
ESTABLISHED ABOUT QUARTER CENTURY.

EXCELSIOR HERB OR BOTANIC BEER POWDER
MAKES THE LARGEST QUANTITY—THE BEST QUALITY.
It is the best and cheapest in the market; makes better drink than any fluid extract; no trouble making; a Sixpenny Box makes 24 gallons, therefore the sales are before all others. Trade Price—One Gross of 2d. Boxes, 17s.; Two Gross, 16s. per gross, net; One Case of 18 2d. Boxes, 2s. 3d.; Two Cases, carriage paid, 4s. 6d. Also in 4d. and 6d. Boxes. The above is not a Ginger Beer Powder. Terms—Cash with Order. Retail Chemists, try this. Prepared only by
W. H. LAKIN, 16 New Bond Street, LEICESTER.

EMP. BELLADONNA.
ON SWANSDOWN, 16 IN. WIDE.
17s. per Doz. net cash.
JOHN QUILLIAM & CO., Plaster Works, Cowburn Street, Manchester.

ANTECZEMA REGD.
The only application which rapidly and effectually cures
ECZEMA AND ALL SKIN ERUPTIONS.
Sold in bottles at 1s. 6d. and 2s. 9d. Now is the time to push it. Write for a show-card, bills, and terms to the trade, to
R. C. LAYNG, CHEMIST, 93 FINSBURY PAVEMENT, E.C.
Wholesale of F. NEWBERY & SON.

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16 Philpot Lane, LONDON, E.C.
SPECIALITIES—
Arabic and Varnish Gums, Glucose, Glycerine, Beeswax, Honey, Rhubarb, Insect Powder, Saffron, &c., &c.
Country orders for original packages included in public sale purchases at fractional margins.

Fletchers' Hydrobromates
Supplied in Original Bottles ready for Patient's use (stamped), to retail at 4/6 each; also in 1-lb. Bottles for Dispensing, by the Sole Manufacturers:—
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WATERPROOF ACCOUCHEMENT SHEETS
Manufactured for the Patentee by
ROBINSON & SONS,
Manufacturers of Antiseptic and Absorbent Lints, Cotton Wools, Gauzes, and Roll Bandages.
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PRECIPITATED CHALK, WHITEST AND PUREST.

CHEAPEST SELLERS IN THE MARKET.
ALSO CHEMICALS, DRUGS AND OILS.
APPLY TO
AUG. LEVERMORE & CO.,
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TRIUMPHANT SUCCESS OF
COOPER'S DIPPING POWDER

At the London Wool Sales for April, Cooper Dipped Wools took 17 out of the first 18 places in the Price List.
WILLIAM COOPER & NEPHEWS, BERKHAMSTED.

NATALI & CO.
SHOP FITTERS & SHOW-CASE MAKERS,
184 Aldersgate Street, LONDON.
SECOND-HAND SHOP FITTINGS BOUGHT, SOLD, AND EXCHANGED.
ESTABLISHED 1863.

EXTRA FINE OIL OF CARPATHIAN CONIFERA for the speedy manufacture of finest Coniferous Spirits. 1 part to 9 parts of 95-per-cent. best spirit. Price per 2-lb. bottle, 20s.
EXTRA FINE OIL OF CARPATHIAN JUNIPER for Medical-Pharmaceutical purposes, and for the manufacture of Essences and Liquors, celebrated for its excellency. Price per 2-lb. bottle, 17s.
These are my own products (no common trade article), and I sell them only for cash.
KOLOMANN GRAGGER, Privileged Apothecary at LIPTO-SZT. MIKLOS, HUNGARY.

KOLA WINE.
VAN HARGAN'S.
The Original Introducer of KOLA WINE.
An excellent Tonic, and assists Digestion.
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SPECIALITIES.
BARBADOES ALOES,
GRAIN MUSK, HOG TRAGACANTH, AND OTTO OF ROSE.
Buyers of Aloes are particularly invited to write for Prices. [1]

An Invitation
Is given to all Chemists who stock Guy's Tonic to kindly communicate the fact to the Guy's Tonic Company, 4 Ludgate Circus, London, as a Register of Local Agents is in course of preparation. This List is being compiled to enable the Secretary to send accurate replies to the inquiries constantly being made by direct postal purchasers from all parts of the country for the names of Local Agents.
Write to-day. A Post Card will do.

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From English Lavender Flowers, and most choice and delicate scents.
Lavender Water.
176 & 177 STRAND, LONDON.
Established 1839.
Wholesale and Shipping terms on application.

KOLA
KOLA WINE, 3/6.
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KOLATINA, or KOLA PASTE, 1/, 2/, 3/6.
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When ordering through Wholesale Houses, please specify "*CHRISTY'S,*" *the ORIGINAL INTRODUCERS OF ALL* Kola preparations.
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GREENSILL'S
ORIGINAL
MONA BOUQUET.
Wholesale and Shipping Terms sent on application to the Sole Manufacturers—
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HAND-PICKED GUM ARABIC.
Wholesale and Export Druggists before buying elsewhere should apply to
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ESTABLISHED 1855.
SANFORD & SON
MANUFACTURERS, SANDY, BEDS
Sole Proprietors of Sanford's Celebrated RAT POISON, without doubt the best ever introduced. Price, 6d., 1s., 2s., and 3s. per box.
Also MICE POISON; cannot be excelled. In packets, 3d., 6d., and 1s. each. Liberal terms to Chemists.
Wholesale of BARCLAY & SON, SANGER & SON, NEWBERY & SON, EDWARDS & SON, and others, London.

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For all purposes and in all styles.
Self-Inking Stamps, as Illustration, from 2/ each.
Chemists' Prescription and Dating Stamp of all kinds, Brass Seals for Wax, Stencils, Dies, &c. Price and Pattern Sheets post free.
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IMPORTER OF
MUSK, CIVET, AMBERGRIS,
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And all Products for Manufacturers of Perfumery.

FRANK WOOD

(From W. WOOD & SON, MANCHESTER),

42 BELVOIR STREET, LEICESTER.

	Per doz.		Each
TRUSSES (Single), Basil & Moleskin	11/6	ELASTIC STOCKINGS (Cotton) ...	2/2
" (Double), " "	18/6	" " (Silk) ...	3/4

ENEMAS (complete in Box), 26/- per dozen.

TERMS — 5 per cent. discount Cash; 2½ per cent. discount Monthly.

Fig. 1.

TRUSSES.

Fig. 2.

H. M. COLWELL'S TRUSS WORKS.

116 NEWINGTON CAUSEWAY AND YORK STREET, LONDON ROAD, S.E.

REDUCED PRICE LIST NOW READY.

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CONSUMPTION

POSITIVELY CURED BY WILLIAM RADAM'S

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This Medicine Cures Disease by Removing the Cause,

MICROBES,

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MANUFACTURERS' AGENT & IMPORTER OF

PERMANGANATE OF POTASH.
ACETATE OF LEAD.
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LACTIC ACID & LACTATES.
SAL ACETOS. GLYCERINE.
AMMONIA MURIATE. [D]

STOCK KEPT IN LONDON.

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CELEBRATED

GOUT

AND RHEUMATIC

PILLS.

THE SAFEST and MOST EFFECTUAL CURE for

Gout,
Rheumatism,
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Pains in the Head Face, and Limbs, &c.

They require neither confinement nor alteration of diet, and in no case can their effect be injurious.

Prepared only by GEORGE EADE, 72 Goswell Road, London, and sold by all Chemists, in bottles, 1s. 1½d.; three in one, 2s. 9d.

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THE SURVIVAL OF THE FITTEST.

SQUIRE KNIGHT'S EYE OINTMENT.

One of the oldest Eye Ointments in th market. Secured and held a splendid sale without advertising. The present proprietor, W. H. Richardson, F.C.S., Chemist, Dudley, desires to advise Chemists that Squire Knight's Eye Ointment is being extensively advertised. As an increased and extending trade is sure to result Chemists would do well to stock it. At all Wholesale Houses.

Correspondence to the Head Depôt at Dudley will always receive prompt attention.

WILLIAM TOOGOOD'S

WAREHOUSE AND SHOW ROOM,

BURLINGTON BUILDINGS,

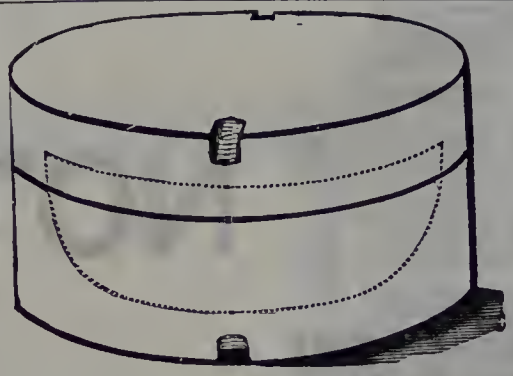
HEDDON STREET, REGENT STREET, LONDON, W.

TOOGOOD'S

IMPROVED PATENT

EARTHENWARE COVERED POTS

Are claimed to be the most perfect and convenient yet offered to the Trade.



Owing to the increasing demand for our Patent Pots, we have introduced a Special THIN Series for Dispensing.

These Pots are beautifully glazed and finished, and, being very light, are specially adapted for sending by post.

ORDINARY THICKNESS—

1 dr.	2 dr.	½	¾	1	1½	2	3	4	6	8 ounces.
1/6	1/6	1/6	1/8	1/10	2/	2/3	2/10	3/6	4/6	5/6 per doz.

THIN FOR DISPENSING—

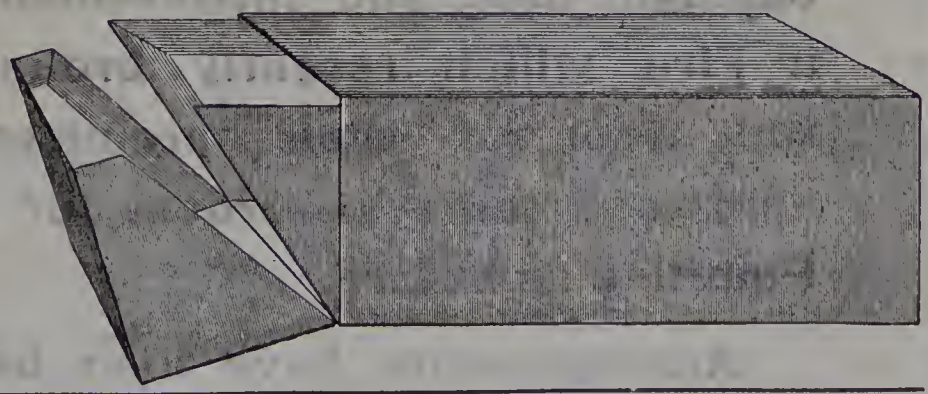
½	¾	1	1½	2	3	4	6	8 ounces.
1/7	1/9	2/	2/2	2/5	3/	4/	5/	6/ per doz.

TOOGOOD'S NEW REGISTERED SLIDE BOXES FOR POWDERS, &c.

REGISTERED No. 154,622.

PRICES.

	For 6	12	18	24 Powders
White Enamel	6/9	7/9	8/9	9/9 gross
Purple ...	7/9	8/9	9/9	10/9 „



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FOR PACKING LINSEED MEAL, JUJUBES, &c. Demy size, 6/6 ream.

TOOGOOD'S PATENT BRONCHITIS AIR KETTLE,

51/- per dozen.

SOLE AGENT FOR DR. LEE'S STEAM DRAFT INHALERS.

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NOTICE.

G. & G. STERN beg to inform Chemists and the Trade that, notwithstanding the damage, loss, and inconvenience caused by a Fire which recently broke out on the top floor of their premises, they are able to execute all orders for Pepsalia and Pumiline as before.

Arrangements have also been made to recommence the manufacture of the various Pumiline and Pepsalia preparations, so that there will be no delay whatsoever in the carrying out of all orders.

62 Gray's Inn Road, London, W.C.,
July 1, 1891.